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**Proceedings
Annual Meeting
Dec. 28-30, 1959
Cincinnati, Ohio**

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CONTENTS

	Page
OFFICERS AND COMMITTEES—1960.	vii
 PRESIDENT'S ADDRESS	
Some Challenges for the College Physical Education Association, C.O. Jackson, University of Illinois	1
 BASIC RESEARCH	
The Effects of Five Methods of Exercise on the Strength, Endurance, and Action Potentials of the Vastus Lateralis, Rectus Femoris, and Vastus Medialis Muscles, Glen P. Reeder, East Carolina College.	7
An Investigation of Tests of Agility, Clair W. Jennett, Ball State Teachers College.	13
Aerodynamic Forces which Influence Javelin Flight, Richard V. Ganslen and Kenneth G. Hall, University of Arkansas.	19
Electromyographic Study Relative to Movements of Thigh at Hip Joint, Charles P. Wolbers, State University College of Education, New Paltz, New York.	27
The Fatigue Effects of Continuous Ballistic Movement Versus Sustained Effort in Non-Ballistic Performance, Wayne W. Massey, University of California, Los Angeles.	31
The Effectiveness of Two Methods of Exercise Used in the Treatment of Back Pain, Gene M. Asprey, State University of Iowa	36
An Exploratory Study of Non-Athletes with High Motor Ability, Jack Keogh, University of California, Los Angeles.	42
The Effect of Rest Following Warm-Up upon Physical Performance, Edward W. Malan, Pomona College	45
Body Size and Form of American-Born Boys of Dutch Ancestry Residing in Michigan, John H. Spurgeon, Ithaca College, New York.	48
 INTERCOLLEGIATE ATHLETICS	
Problems in the Administration of a Department of Physical Education and Athletics as a Single Administrative Unit	

	Page
Part I - Facilities and Equipment, J. Edward Weaver, Ohio State University	53
Part II - Public Relations, Carroll C. Widdoes, Ohio University	54
Part III - Financial Control and Procedures, Carl Erickson, Kent State University	55
Part IV - General Athletic Administration, John B. Daugherty, Indiana University.	56
Part V - Staff Relationships, Mitchell J. Gary, Western Michigan University.	57
 TEACHER EDUCATION	
General Education in the Professional Preparation of the Physical Education Teacher, Floyd D. Rees, Central Missouri State College	58
The Role of the Junior College in the Preparation of Physical Education Teachers, Raymond A. Snyder, University of California, Los Angeles	65
Developments in National Standards and Guide for the Eval- uation and Accreditation of Professional Preparation in Health Education, Physical Education, and Recreation Ed- ucation, Carl L. Nordly, University of California, Berkley	69
Changing Patterns of Graduate Study in Physical Education, Karl C. H. Oermann, University of Pittsburgh	76
Graduate Preparation for Research in Physical Education, Paul Hunsicker, University of Michigan.	83
 BASIC INSTRUCTION	
Orienting Students to Physical Education, D. C. Moffett, State University of New York College of Education at Cortland	89
Are Our Programs Well Oriented in this Jet Propelled Age? James W. Long, University of Toledo	92
Orientation to Instructional Physical Education at Michigan State University, Wayne D. Van Huss, Michigan State University	95

	Page
Interpreting the Physical Education Program to Students, Faculty and the Community, Carl E. Erickson, Kent State University	99
Interpreting Physical Education to Students, Faculty, and the Community, Arthur Weston, The Rice Institute	104
Criteria for Administration of the Public Relations Program in Physical Education, Ivan W. Swisher, Santa Monica City College	108
BASIC INSTRUCTION - ADAPTED PHYSICAL EDUCATION	
The Atypical in a Hospital Program, Alfred Milner, Vet- erans Administrative Hospital, Cincinnati, Ohio	114
Adapting the Physical Education Program to the Atypical, Sam Newberg, Indiana University	116
Physical Education for the Atypical Students at the Univer- sity of Illinois, Robert E. Shelton, University of Illinois . .	119
INTRAMURAL ATHLETICS	
A Survey of the Administration of Intramural Sports Pro- grams for Men in Selected Colleges and Universities in North and South America, Rodney J. Grambeau, Univer- sity of Michigan	123
Human Relations in the Administration of an Intramural Sports Program, George W. Haniford, Purdue University .	129
A study of Budgets, Officials and Activities in Intramural Programs for Colleges and Universities, Glen E. Gal- ligan, Washington State University	130
How Do We Handle This One? Harris F. Beeman, Michigan State University	136
On Building an Intramural Point System, Richard B. Morland, Stetson University	139
Intramural Injuries, David O. Matthews, Bowling Green State University	143
FOREIGN RELATIONS	
Physical Education in India, Hartley Price, Florida State University	147

	Page
Physical Education: A Medium for International Education, Richard C. Havel, Springfield College	154
World Sports as Depicted by Postage Stamps, David A. Field, University of Bridgeport	158
REPORTS	
President's Report - 1959	161
Minutes	
Executive Council, December 27, 1959	162
Business Meeting, December 29, 1959	162
Executive Council, December 30, 1959	165
Standing Committees	
Constitution Committee	166
Convention Program Committee	166
Finance Committee	167
Foreign Relations Committee	168
Membership Committee	168
Necrology Committee	169
Nominating Committee	174
Policies Committee	175
Public Relations Committee	180
Resolutions Committee	181
President's Committees	
Committee to Publicize Fitness	181
Committee to Study Attacks on the Basic Instruction Program	182
Convention Publicity and Hospitality Committee	189
Joint Committees	
Joint Committee Co-Educational Relationships	189
Implementation of Physical Education Committee	190
Joint Committee on Physical Education and Athletics	190
Continuing Committees	
Construction and Equipment Committee	191
Miscellaneous Report	
National Conference of Athletic Directors, L.K. Butler, Oberlin College	192
Materials Relating to a Physical Education, Sports, and Athletic Facilities Study at the University of Illinois, H.E. Kenney, University of Illinois	198
MEMBERSHIP	
Roll of Members	205
CONSTITUTION	235
Membership Information	242

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President's Address
1959

**SOME CHALLENGES FOR THE
COLLEGE PHYSICAL EDUCATION ASSOCIATION**

C. O. JACKSON
University of Illinois

Last year our president, Jack Shaw, traced the events and developments of recent years and pointed out the signs of progress. When we look at events in terms of time or similar space sign posts we can often see things in better perspective. This helps us not only to see things as they are in the present, but may even be helpful in anticipating some of the trends, the changes, and the problems of the future.

The College Physical Education Association was formed more than sixty-three years ago, to promote the interests of physical education in institutions of higher learning. Its objectives, as listed in our most recent publication, Fit for College are as follows:

To improve the contributions of physical education, and where appropriate, the related fields of health education and recreation to higher education.

To identify and define the major issues and problems confronting the profession, particularly those of higher education, and resolve them to the best possible ends.

To gather, analyze, interpret and organize the research needed to resolve the major issues and/or problems facing the profession of physical education, especially those which are concerned with higher education.

To develop interdisciplinary relationships with kindred fields of knowledge for the light they may shed on the nature and values of physical education (e.g. anthropology, psychology, sociology, sports medicines, etc.).

To improve public relations through increasing public understanding of the nature and purpose of physical education in American and world life.

Our Association is made up of nearly 800 persons teaching students, directing programs, and carrying on research in colleges and universities. The objectives can be a real challenge to every member, but only if each one reviews them periodically and then does his best to help the group, and himself to attain them.

The ancient Romans had a god called Janus who was two-faced. He had two faces, one where his face should be and one where the back of his head was, which meant that he could see in two directions. He could see where he had been, and he could see where he was going. Perhaps we can start with this sort of perspective.

Early in the 1940's, it was my privilege to be a graduate student at New York University. Some of you who have spent a summer at Lake Sebago know what a wonderful, exciting, and challenging experience that was. During one summer, I recall a most unusual talk at one of the weekly campfire sessions on the waterfront. A speaker gave a panoramic view of the development of man from the earliest time to the present. It was a broad sweep, with significant events painted in bold strokes, and a word-mural picture which fascinated us all, especially as a prelude to the future.

That week, the camp news reporter summarized the hour long lecture in a capsule. He wrote that the speaker talked about "Where did we come from? Why are we here? and Where are we going?" and that was the entire report! It would seem that the writer DID pull out the essential areas of emphasis, but of course, he did not present any of the conclusions of the speaker.

When an organization has existed in an important, constructive and vital way for sixty-three years or more, we don't have to spend much time wondering about "where did we come from." Those early pioneers who founded the College Physical Education Association saw a need and did something about it; they organized to further the cause of physical education, and especially to improve its contribution as a profession, on the college level.

By the same reasoning, we can answer the next question, "why are we here?" in much the same way, to improve, to contribute to, and to make more worthwhile, our contributions to the men and women in our classes. But today there is a real difference, since we are met here in a convention assembled.

Some are here because it is the thing to do; professional people go to conventions. Others are here perhaps to get away for awhile from the Christmas cheer with its over-eating, over-drinking, and over-stimulation, although there may be a few who merely carry on those same activities in another setting. Some newcomers may be here wondering just what the College Physical Education Association does at its meetings, and hoping they may get some professional stimulation, a few new ideas, and perhaps some professional challenges.

There probably are some present who are here because of social interests. A convention is a time to meet old friends, to make new ones. Out of this may come new opportunities for service in other situations as they seek and find other positions.

Actually, if we are honest and realistic, it is likely that most of us are present for a number of the reasons just listed. But, as we spend time and money for the privilege of attending nearly three days of convention meetings, let us not lose sight of the fact that the main purpose

of this convention is to hold worthwhile and inspirational meetings. Unless we attend those meetings, and unless we give as well as take, contribute as well as receive, perhaps the whole effort is largely wasted.

We could, of course, preach a sermon using our objectives as the basis, or we could use any or all of them as "challenges to be faced." This brings us face to face with the third phase, "Where are we going?"

The profession called "physical education" has never faced as many challenges as it does today. Two of the most significant contributions to the individual are the area of mental and emotional health. We also know that the most valuable and popular way is to recreate through sports. And, of course, physical education is the best and most enjoyable way to put exercise back into our lives.

We live in a world where tensions are steadily growing worse, where mechanization and the automobile have robbed us of many opportunities to live as nature intended a biological organism like ours should live. It isn't necessary to tell this audience of the lack of fitness of the majority of our youth, of the physical deficiencies, the television legs, the lack of incentive and desire to be active in a physical way. Now let's look at some challenges.

On the graduate level, we need better programs for our students; better selection of those who are to carry on after we bow out; improved quality in our research programs; and a determined attempt not only to find the truth, to get to the bottom of many pressing problems, but to make these truths known and available to the "grass roots" people, those in the front lines of our high schools and colleges.

Some of the problems in our professional curricula might be listed as: recruitment of more of the best prospects; stronger, more functional curricula graduating only the best qualified and best educated prospects; locating the best possible positions for these graduates; follow-up and inservice education; public service; improved and broadened public relations so that the students, the faculty, the people in the community, yes in the state and nationally, and we ourselves understand what we are attempting to do in our profession, the problems we face, and what is needed to achieve the professional goals we believe are vital. What about interscholastic and intercollegiate athletics? What about intramurals?

And when we think of our basic instruction program, our service program, many of the same challenges must be faced. Among them might be: what is physical education, and why should we have a required program? How can we improve our offerings to our students, and more nearly justify the time, and money expended? How can we persuade more dedicated teachers that, just as in the public schools, some of the greatest challenges are found in the elementary school, so, in many colleges and universities, a similar situation exists in the freshman and sophomore required program? And how can we convince more administrators that good teaching on any level is just as important as good research?

At a Colloquium on Exercise and Fitness, which some of you attended early this month at Robert Allerton Park, near Monticello, Illinois, a number of these challenges were explored by some seventeen leaders in the areas of medicine, biology, psychology, physiology, and physical education. One hundred and twenty-five invited guests spent two and one-half days listening to lectures and participating in discussions.

Dr. Edward L. Bortz, past president of the American Medical Association and chief of Lankenau Medical Hospital in Philadelphia, in his keynote address at the Conference made a significant statement. He said:

"Exercise is the master conditioner of the healthy, and the major therapy of the ill. . . . Exercise is the most important, and the most neglected of practices individuals should utilize to enjoy added years of life. . . ."

If you are looking for some real "ammunition" to justify your educational program on any level, the Proceedings of that Conference, to be published in April by the Athletic Institute and sold at cost, will give you considerable authoritative help.

The America we knew yesterday has changed, probably it no longer exists as we remember it. Change, and rapid change is the pattern of our times. As leaders in physical education, we must face up to the many challenges and problems resulting from this and solve many of them, if we are to continue in business, in fact, if we are to continue to exist.

Yesterday's programs may not meet tomorrow's needs, especially as our existing space shrinks, outdoor space is filled up with classroom buildings, and our indoor facilities are inundated by a flood of students. It seems that we are faced with a dilemma; either we make some sensible and sound changes, or we may lose part or all of our requirement.

This sounds like a retreat, a loss, an unforgivable concession. However, perhaps what we need to do is take an objective view of our own institution, a realistic approach as some schools in the midwest have done. This means planning a new type of course in Sports Appreciation, or one in Exercise, or a basic course, partly theory, partly practice, but intended to give the participant an overview, both scientific and practical, to help him now and in later life.

Perhaps the greatest challenge we must face is something that is commonly referred to as "splintering," or dividing our forces and our energies to the point where nothing becomes very effective. Years ago, an engineer received four years of rather technical training which fitted him to meet most of the demands society might make of him. For some-time now, all engineers take a common curriculum for one or two years, and then specialize for the next two or three in rather narrow fields, because of the tremendous advances in technology.

When some of us were beginners in the profession of physical education, we rightly or wrongly assumed that health education, safety, education, and recreation, as well as coaching sports and teaching activity classes were all part of the field. And most of us have taught in many or all of those areas, not once but many times during our lives.

Today, because of specialization, we have four-year curricula preparing directors of recreation, others preparing persons to organize and direct programs in health and safety, and, of course, many preparing to teach physical education and academic subjects, and coach athletics. And it is probably both essential and desirable that such divisions be set up and maintained.

The challenge, however, arises when these divisions or groups "split" or "splinter" from the main body of physical education to the point where they often are not only at cross purposes with each other, but competing for each other's students and funds. An example to mention here is a comment reported by a senior student when department status had been granted. "Good! Now we can do as we please without those other folks interfering with us!"

Recreation without physical education, without health education and safety, is just as unthinkable as recreation without music, drama or arts and crafts. Health education without recreation and physical education, whether it is just exercise or a pleasurable activity, makes as much sense as health education without consideration for environment, for health instruction, or for health service. And physical education, without attention to the health and safety of the participants, and definite emphasis on carry-over and recreational activities cannot be justified only as "something to do" when you are bored with inactivity.

Unless we make a definite attempt to "bridge the gap", to keep our perspective of these other important areas, and, at the same time, to help them see how interrelated the three professions really are, there is trouble ahead, serious trouble, especially as all areas of education intensify their fight for the tax dollar. Even among some of those present today there are special interests with little or no concern for any others.

We should remember that this "splintering" just described, also exists within our present "tight little island" of physical education. Some research people look askance at others, and many in both groups often look down on all the rest; some teachers of graduate courses criticize those teaching professional courses; and many who are doing a wonderful job of teaching on the activity level, and making a fine contribution are unhappy and disturbed because they feel their talents might be better appreciated elsewhere. We even have difficulty in agreeing on a definition of physical education!

You may remember the interesting parable by James Thurber, in his "Further Fables for Our Time." The tiger challenged the lion to see who was "king of the beasts." "It was a terrible fight and it lasted until the setting sun. All the animals of the jungle joined in, some taking

the side of the tiger, others the side of the lion. Every creature from the aardvark to the zebra took part in the struggle to overthrow the lion or to repulse the tiger, and some did not know what they were fighting for, and some fought for both, and some fought whoever was nearest, and some fought for the sake of fighting.

'What are we fighting for?' some asked the aardvark.

'The old order,' said the aardvark.

'What are we dying for?' someone asked the zebra.

'The new order,' said the zebra.

When the moon rose, fevered and gibbous, it shone upon a jungle in which nothing stirred except a macaw and a cockatoo, screaming in horror. All the beasts were dead except the tiger, and his days were numbered and his time was ticking away. He was monarch of all he surveyed, but it didn't seem to mean anything."

Somewhere in Indiana, outside a small town there is a sign which I have seen several times. It reads, "Don't just sit there! Nag your husband!" I'm not sure how much good it does except furnish a laugh to those who pass by, but it does illustrate a common trait many of us possess, expressed by a similar quotation, "Don't just stand there! Do something!"

A good example of this desire for action is only too well illustrated by the way our leaders, governmental as well as statewide, and in many professions, including education, reacted when the first Russian sputnik was launched. We were startled, shocked, dismayed and frightened to the point where the emphasis was, "Do something! Do anything, but do something!" And the resulting events where both humorous and tragic, many of which might be illustrated by the phrase, "he jumped on his horse and galloped off in all directions!"

In a recent issue of the Ed Press Bulletin, reference is made to the phrase presented a moment ago, "Don't just stand there! Do something!" But the editor paraphrased it to make considerably more sense when he said, "Don't just do something! Stand there!" His point was that we should stop, look, and listen long enough when a statement was made, or a problem faced, to get a sense of direction, to see where we want to go, and then take action.

The time is long past when we can go on placidly assuming that we are doing a fine job, that "God's in His Heaven, all's right with the world," and that no changes, no modifications, no improvements are needed. My suggestion and my hope is that we will carefully study the problems we are facing in our profession, and in our own institutions, consider them as challenges, and after determining a line of intelligent, purposeful action, "don't just stand there!" Do something professional and constructive!

Basic Research

THE EFFECTS OF FIVE METHODS OF EXERCISE ON THE STRENGTH, ENDURANCE AND ACTION POTENTIALS OF THE VASTUS LATERALIS, RECTUS FEMORIS AND VASTUS MEDIALIS MUSCLES

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Knee-joint injuries incurred through participation in athletics include injuries effecting the medial collateral ligament, the lateral collateral ligament, the posterior cruciate ligament and the menisci between the femur and the tibia. Probably the most common knee-joint injury is that involving the medial collateral ligament and the medial meniscus.¹ Since the stability of the knee joint is primarily dependent upon the ligaments and the muscles that pass the knee joint, the strengthening of these muscles should lessen the number of injuries to the knee joint.

Different methods of exercise for the prevention of knee injuries and for the rehabilitation of persons who have suffered knee injuries have been proposed. The following methods were used in this study: DeLorme Method, Thorndike Method, Klein Method, Sills Method, and Manual-Resistance Method.²

The purposes of this study were: (1) to evaluate the relative effectiveness of selected methods of exercise in developing the strength and endurance of the quadriceps muscle, (2) to determine by means of electromyography the function of the rectus femoris, the vastus lateralis and the vastus medialis during the performance of the selected methods of exercise, and (3) to compare for the various methods of exercise the action potentialis developed by the rectus femoris, the vastus lateralis, and the vastus medialis at the beginning and at the end of the experiment period.

PROCEDURE FOR COLLECTING DATA

Data for this study were obtained from fifty male students enrolled in the physical-education skills program at the State University of Iowa. The subjects were from 17 to 19 years in age, from 5 feet 9 inches to 5 feet 11 inches in height, and from 145 to 160 pounds in weight.

¹H. F. Moseley, "Disorders of the Knee," *CIBA Clinical Symposia*. November-December, 1953, pp. 174 and 193.

²Bibliography may be obtained from author, if desired.

Five groups, each group consisting of ten subjects, were formed on the basis of the quadriceps strength-scores. Each group was then assigned to one of five quadriceps-strengthening exercise programs for an eight-week period. Each group performed its designated method of exercise three times a week. Only those students who volunteered to make themselves available at times other than during classtime were selected as subjects.

Data on three measurements were obtained from each of the subjects. The data, which were collected before and after an eight-week experiment, include measurements of quadriceps strength, measurements of quadriceps endurance, and measurements of action potentials for recording potentials from the selected points on the thighs of the subjects. Throughout the study the recordings were made with a paper speed of 15mm. a second. Before each exercise was started and after the amplification settings had been determined, a calibration recording was made for that setting. This recording served as the basis for measuring the subsequent electromyograms. To prevent atmospheric electrical interference from being recorded, all the recordings were made with the subject exercising in a shielded room.

The electrodes were of the surface type, that is, saucershaped disks of silver about 9 mm. in diameter. Each pair of electrodes was mounted on a piece of nonconducting hard board, which was about 13 mm. wide and 50 mm. long. Two holes, which were 5 mm. in diameter, were drilled in the hard board, and the wire of an electrode disk was drawn through each hole. A soldering gun was then used to heat the electrode and its wire, and a drop of solder was placed in the hole behind the disk. As the solder more than filled the hole in the hard board and was firmly attached to the electrode disk, this arrangement resulted in a permanent pair of electrodes, which were easy to apply and which remained 20 mm. apart.

During the performances of the specified methods of exercise, records of action potentials for the vastus medialis, the rectus femoris, and the vastus lateralis were recorded on Channels 1, 2, and 3 of the electroencephalograph. On the electromyogram, by means of a micro-switch hooked up to Channel 4, marks were made to designate the completion of each of the four quarters of the movement. A mark to designate the first registered by the rectus femoris, the vastus medialis, and the vastus lateralis.

The strength of the muscles that extend the lower leg at the knee joint was measured by means of a cable tensiometer. In the collection of all the data the subject sat on a table and let his lower leg hang over the edge of the table. An adjustable cable was attached to the heel of a special shoe worn by the subject during the test. An angle of 90 degrees was maintained between the cable and the lower leg. The subject attempted to extend the lower leg at the knee joint, which effort caused a reading on the dial of the cable tensiometer. The highest score for three trials was recorded as the strength of the quadriceps muscle. Data was collected from only one leg for each subject, and the subject was allowed

to choose the leg to be used, which was the same leg as that exercised during the experiment.

An r of .98 was obtained between the results of the strength test administered on the first day of the experiment and the results of the strength test administered on the third day of the experiment.

In the collection of all the data, in testing for endurance, the subject sat on a table and let his lower leg hang over the edge of the table. A metal boot with attached plates weighing forty pounds was strapped to the subject's foot. The number of complete lower-leg extensions that the subject performed was recorded. Data for each subject were collected from the same leg as that used in the strength testing.

A Grass electroencephalograph (Model 111D) equipped with four amplifying channels and an ink-writing assembly with four pens was used.

FINDINGS

To determine whether the observed changes in strength within each of the five groups might be attributed to some factor other than chance, the Fisher t test for use with small equated samples was applied. The gains in strength between the initial and final testing were statistically significant ($P = .01$).

To determine whether the observed changes in endurance within each of the five groups might be attributed to some factor other than chance, the Fisher t test for use with small equated samples was applied. The gains in endurance between the initial and final testing were statistically significant for the Manual-Resistance group, the Sills group, the DeLorme group, and the Thorndike group ($P = .05$).

In order to determine whether the observed differences in strength between the five groups at the end of the experiment period might be attributed to chance, an analysis of covariance was used. The analysis showed that the differences between the mean gains in strength are not statistically significant.

In order to determine whether true differences existed in endurance between the five groups at the end of the experiment period an analysis of covariance was again employed. The analysis showed that the differences between the groups are not statistically significant.

In Table 1 a summary of the analyses of the mean microvoltages elicited by the muscles is presented for the five methods of exercise for the four quarters of the movement.

In Table 2 a summary of the analyses of the mean microvoltages elicited by the muscles during static contraction is presented for the five methods of exercise when the angles behind the knee joint are 90 and 170 degrees.

DISCUSSION OF FINDINGS

Since the differences between the gains are not statistically significant, such factors as (1) economy of time, (2) ease of application,

(3) mass participation, and (4) minimum amount of equipment may be used to determine which one of the five exercises should be used.

Table 1
Initial and Final Rankings* of Mean Voltages Elicited by Vasti Laterales, Recti Femorum, and Vasti Mediales for Each Quarter of Movement: by Methods

Methods	Muscles	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final
Manual Resistance	Vasti Lat.	2	1	<u>2</u>	<u>1</u>	2	1	2	1
	Recti Fem.	3	3	<u>3</u>	<u>3</u>	3	3	3	1
	Vasti Med.	1	2	<u>1</u>	<u>2</u>	1	2	1	1
Thorndike	Vasti Lat.	<u>2</u>	<u>2</u>	1	1	1	1	1	2
	Recti Fem.	<u>3</u>	<u>3</u>	3	3	3	3	3	3
	Vasti Med.	<u>1</u>	<u>1</u>	2	2	2	2	2	1
DeLorme	Vasti Lat.	2	2	<u>2</u>	<u>1</u>	2	2	3	2
	Recti Fem.	3	1	<u>1</u>	<u>2</u>	3	1	2	3
	Vasti Med.	1	3	<u>1</u>	<u>3</u>	1	3	1	1
Sills	Vasti Lat.	1	1	<u>1</u>	<u>3</u>	2	2	2	2
	Recti Fem.	3	3	<u>3</u>	<u>1</u>	3	3	3	3
	Vasti Med.	2	2	<u>2</u>	<u>2</u>	1	1	1	1
Klein	Vasti Lat.	1	1	<u>2</u>	<u>2</u>	2	2	2	2
	Recti Fem.	3	3	<u>3</u>	<u>3</u>	3	3	3	3
	Vasti Med.	2	2	<u>1</u>	<u>1</u>	1	1	1	1

* 1 = highest mean voltage; 2 = second highest mean voltage; 3 = lowest mean voltage. If the rank is underscored, the muscles elicited their greatest mean microvoltage in the designated quarter of the movement.

Table 2
Initial and Final Rankings* of Mean Voltages Elicited by Vasti Laterales, Recti Femorum, and Vasti Mediales at 90- and 170-degree Angles behind Knee Joints

Methods	Muscles	90 Degrees		170 Degrees	
		Initial	Final	Initial	Final
Manual Resistance	Vasti Lat.	2	1	3	2
	Recti Fem.	3	3	2	3
	Vasti Med.	1	2	1	1
Thorndike	Vasti Lat.	2	2	3	2
	Recti Fem.	3	3	2	3
	Vasti Med.	1	1	1	1
DeLorme	Vasti Lat.	2	1	1	1
	Recti Fem.	3	3	3	2
	Vasti Med.	1	2	2	3
Sills	Vasti Lat.	2	1	2	2
	Recti Fem.	3	3	3	3
	Vasti Med.	1	2	1	1
Klein	Vasti Lat.	2	1	2	1
	Recti Fem.	3	3	3	3
	Vasti Med.	1	2	1	2

* 1 = highest mean voltage; 2 = second highest voltage; 3 = lowest mean voltage.

The Manual-Resistance method seems to meet the four preceding criteria for an effective exercise to increase the strength and endurance of the quadriceps muscle.

For reasons that are not clear to the writer, there is an increase in the microvoltages elicited in the final testing, in which the same resistance was used as that in the initial testing, for each method of exercise. These increases are not great, and are not considered to be as important as the changes that occurred in the relative contributions of the muscles when the exercises were repeated at the end of the experiment.

The electromyograms of the initial and final testings for each of the five methods of exercise, reveal that there are variations in the mean microvoltages elicited for each of the muscles. The fact that the relative contributions of the muscles vary for the different methods of exercise indicates that it would be possible to strengthen the quadriceps muscles by one method of exercise without emphasizing the strengthening of the one muscle of the quadriceps most important in preventing a knee injury or in rehabilitating an injured knee. On the basis of these findings, it is important that there is a relationship between the method of exercise and the function of the muscle that should be considered in prescribing exercises.

In this study microvoltages were recorded as the amount of resistance which the muscle had to overcome was increased; that is, for the static contractions when the angle behind the knee joint was 90 and 170 degrees the muscles were stronger at the time of the final testing than at the time of the initial testing. Although no effort was made in this study to determine the relationship between force and microvoltages, a previous study by Inman, Saunders, and Abbott,³ indicates that there is a direct relationship between the tension developed in a muscle and the action potentials recorded.

An examination of the electromyograms shows for the initial and final testing that the Thorndike method is, of the five methods, the most effective in increasing the microvoltage of the vasti mediales during all-out static contraction; that the Manual-Resistance method is, of the five methods, the most effective in increasing the microvoltage of the vasti laterales; and that the Sills method is, of the five methods, the most effective at 90 degrees, whereas the DeLorme method is, of the five methods, the most effective at 170 degrees in increasing the microvoltage of the recti femorum.

One quarter of the movement was made on the electromyogram when the lower leg was being extended and the angle behind the knee joint was 135 degrees. A mark to designate the second quarter of the movement was made on the electromyogram when the lower leg was completely extended and the angle behind the knee joint was 180 degrees.

³V. T. Inman, J. B. de C. M. Saunders, and L. C. Abbott, "Observations on the Function of the Shoulder Joint," Journal Bone and Joint Surgery, January, 1944, p. 20.

A mark to designate the third quarter of the movement was made on the electromyogram when the lower leg was being flexed and the angle behind the knee joint was 135 degrees. A mark to designate the fourth quarter of the movement was made on the electromyogram when the lower leg was being flexed and the angle behind the knee joint was 90 degrees.

Records of action potentials for vastus medialis, the rectus femoris, and the vastus lateralis were recorded for two positions on Channels 1, 2, and 3 of the electroencephalograph as the subject exerted maximum effort to extend the lower leg against manual resistance for a ten-second period. The angle behind the knee joint for the first record was 90 degrees and, for the second record, 170 degrees.

Pen excursions for a known voltage were recorded at the beginning and at the end of each testing-session, and the electromyograms obtained during the testing-session were compared to the calibration wave obtained from the pen excursions for a known voltage. The peak pen excursion for each two-fifths of a second of the exercise was measured, and the mean of the measurements was computed for each electromyogram. This mean was compared to the measurement made on the calibration wave; and the value thus obtained was assigned to the electromyogram. No voltage values were recorded until two values that did not differ more than ten microvolts from each other had been obtained, in which case the larger voltage value was recorded.

SUMMARY

Disregarding the relative contributions of the three muscles as indicated by the electromyographic analyses, the selection of any one of the methods of exercise is satisfactory for the development of strength and the selection of any one of four methods (Manual Resistance, Thorndike, DeLorme, and Sills) is satisfactory for the development of endurance.

Consideration of the electromyographic patterns shows that for the vasti laterales the greatest gain in mean microvoltages during all-out static contraction for both the 90- and 170-degree angles behind the knee joint and the greatest gain in mean microvoltages during concentric contraction are found for the Manual-Resistance method of exercise. For the recti femorum the greatest gain in mean microvoltages during all-out static contraction for both the 90- and 170-degree angles behind the knee joint and the greatest gain in mean microvoltages during concentric contraction are found for the Sills and the DeLorme methods. For the vasti mediales the greatest gain in mean microvoltages during all-out static contraction for both 90- and 170-degree angles behind the knee joint is found for the Thorndike method. For the vasti mediales the greatest gain in mean microvoltages during concentric contraction is found for the Sills method.

There is agreement between the results found for static and concentric contractions of two muscles (*vasti laterales* and *recti femorum*) in relation to the methods of exercise, while for the third muscle (*vasti mediales*) one method elicits the highest mean microvoltages during static contraction while another method elicits the highest mean microvoltages during concentric contractions.

The results of the electromyographic analyses indicate that certain of the methods of exercise are more effective in developing a particular muscle than are the other four methods. Two bases for selecting one method in preference to the others are suggested: the first is the gain obtained in the magnitude of the microvoltages during all-out static contraction from the beginning to the end of the experiment; the second is the change in the electromyogram patterns during concentric contractions for the five methods of exercise from the beginning to the end of the experiment.

AN INVESTIGATION OF TESTS OF AGILITY

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A tentative hypothesis that performances on agility tests can be accounted for by certain "factors" is consistent with information in the literature concerning agility. Information gained from a survey of the literature implies that from one to five factors will account for much of the variance of agility tests. Further study of agility test data by recently developed factor analysis procedures¹ seems to be warranted to determine whether such hypothesized relations between certain factors and several agility test performances will be sustained.

The two specific aims of this investigation were (1) to ascertain from the literature the factors of which agility is purportedly comprised; and (2) by means of a factor analysis, to investigate the hypothesis that performances on agility tests can be accounted for, at least in part, by the selected factors.

PROCEDURE FOR OBTAINING DATA

The hypothesized factors of which agility is purportedly comprised were compiled. These factors are (1) balance, (2) change of direction, (3) change of position, (4) endurance, (5) height, (6) power, (7) reaction time, (8) speed, (9) strength, (10) velocity and (11) weight.

With the exception of power and endurance, all of the factors listed

¹Harold P. Bechtoldt, "Factor Analysis of Test-Retest Data" (a paper read at Midwestern Psychological Association Meeting, St. Louis, Mo. 1956).

above were defined for use in this study. Three tests were selected to define each of the following factors: reaction time, speed of movement, strength, change of position and balance. Five tests were selected to define change of direction, and five measurements were selected to define body size and form. Table I shows the hypothesized factors and the defining variables.

Collection of Data

For each subject, data were obtained from each of the twenty-five variables constituting the test battery. All tests were administered during the second semester of the 1957-58 school year.

Subjects

One hundred male students at the State University of Iowa volunteered to serve as subjects for this study. The ages of the subjects ranged from eighteen to twenty-five years.

ANALYSIS OF DATA

Three hypotheses were formulated for the analysis: the prerequisite hypothesis, the major hypothesis, and the supplemental hypothesis.

(1) The prerequisite hypothesis is that twelve tests — three of strength, three of speed of movement, three of balance, and three of reaction time — will define four factors. These tests are designated as the "reference tests". All other measures are referred to as "experimental tests" or "supplemental measures." This hypothesis is prerequisite to the major hypothesis.

(2) The major hypothesis is that there will be positive correlations between the reference tests and the experimental tests and that these correlations will be accounted for by the four factors defined by the reference tests.

(3) The supplemental hypothesis is that one or more common factors restricted to the experimental tests may appear even if the major hypothesis is retained.

Factor Analysis

Product-moment coefficients of correlation were computed by punched card methods for all pairs of measures. The analysis of the correlations consisted of three parts: Part A, the factoring of the reference tests; Part B, the projection of the scores of the experimental tests upon the factors defined in Part A, and the factoring of the residual matrix of the experimental tests; and Part C, the projection of the scores of the supplemental measures upon the factors defined in Part A and B. Table II shows the variables that were used in each part of the analysis.

The factoring of the reference tests in Part A and of the residual matrix of Part B involved two stages. First, factors were extracted by the complete centroid method using reestimations of the diagonals in

determining each factor. The significance of the factors in Part A was tested by a criterion based on three approximation procedures. The criterion consisted of three "empirical rules for the number of factors."² On the basis of this criterion, the number of factors to be used in the second stage was determined.

In the second stage, the multiple-group method of factoring with communalities, initially estimated from the stage one calculations, was used to compute the factor loading on the centroid factors. This was repeated until communality was stabilized to within $\pm .01$ as determined by the successive cycles.

The projection procedure in Part B was a variation of the multiple-group factoring technique. The procedure was developed by Bechtoldt.³

The specific procedures used are described in order below.

The centroid factoring of the Part A, or reference variables yielded four significant factors. The fifth factor extracted was rejected as non-significant by the three empirical rules; therefore, four factors were retained. The factors were designated as Factor I, Factor II, Factor III, and Factor IV. Twelve cycles of multiple group factoring were necessary to stabilize the communalities to $\pm .01$.

Using the correlations between the scores of the reference tests and the scores of the experimental tests, the loadings of the experimental tests on these reference factors were determined by the projection procedure. The matrix of the four-factor residuals of the inter-correlations for the experimental tests was computed using the loadings on Factors I, II, III, and IV by the usual R - FF' procedure.

Centroid factoring of the residuals yielded two additional factors that were designated as Factor V and Factor VI. The second of these factors, i.e. Factor VI, was significant on the basis of the three empirical rules and, therefore, was retained. Three cycles of the multiple-group method factoring were necessary to stabilize the communalities.

The loadings of the supplemental measures on Factors I through VI were determined by the correlations between the scores of the twelve reference tests and the scores of the supplemental measures and the correlations between the scores of the eight experimental tests and the scores of the supplemental measures.

To test the three hypotheses, Factors I, II, III, and IV were rotated obliquely with respect to each other, but they were kept orthogonal to the set of Factors V and VI that were defined by the experimental tests. Similarly, Factors V and VI were rotated separately from Factors I, II, III, and IV. Within these limitations, the factors were graphically

²Sir Godfrey Thompson, The Factorial Analysis of Human Ability, pp. 121-23.

³Harold P. Bechtoldt, "Factor analysis of the Airman Classification Battery with Civilian Reference Tests" (Human Resources Center Research Bulletin, 1953).

rotated to a positive oblique simple structure in accordance with Thurstone's⁴ criteria.

Four factors were obtained by the centroid factoring of Part A; therefore, the prerequisite hypothesis is retained. On the basis of the high loadings on the rotated factor matrix, the four factors were designated as: Factor I, Reaction Time (RT), defined by tests 1, 2, and 3; Factor II, Speed (SP), defined by tests 4, 5, and 6; Factor III, Strength (ST), defined by tests 7, 8, and 9; and Factor IV, Balance (BA), defined by tests 10, 11, and 12.

All but one of the correlations between the reference tests and the experimental tests are positive. The adequacy of the four reference factors in accounting for the correlations between the reference tests and experimental tests is demonstrated by the lack of significance of the four-factor residuals. Therefore, because of the positive correlations between the tests and the lack of significance of the residuals the major hypothesis is retained.

The median communality of .43 for the agility tests would indicate that about two-fifths of the variance of the agility tests is accounted for by the reference factors.

Two additional factors were obtained by the centroid factoring of the residuals. Therefore, the supplemental hypothesis is retained. These factors were designated as: Factor V, Change of Direction (CD), defined by tests 16, 17, 18, and 20; and Factor VI, Change-of-Position (CP), defined by tests 13, 14, and 15.

SUMMARY OF FINDINGS

The prerequisite, the major, and the supplemental hypotheses are retained. Four factors were defined by the reference tests: (1) Factor I, Reaction Time (RT); (2) Factor II, Speed(SP); (3) Factor III, Strength (ST); and (4) Factor IV, Balance (BA). Two additional factors were defined from the residual matrix of the experimental tests: (1) Factor V, Change-of-Direction (CD); and (2) Factor VI, Change-of-Position (CP). In general, the twenty variables defining these six factors are in close agreement with the expectations derived from the literature and summarized in Table I. The results indicate that the four "reference" factors can not account for the common factor variance among the set of "agility" tests and that two additional factors are necessary.

⁴L. L. Thurstone, Multiple-Factor Analysis, p. 335.

Table I

Hypothesized Factors and the Variables Used to Define the Factors

Hypothesized Factors	Defining Variables
Reaction Time	1. Simple Hand Reaction Time 2. Choice Reaction Time 3. Simple Foot Reaction Time
Speed of Movement	4. Speed of Arm Movement 5. Alternate Foot Rapping (standing) 6. Twenty-Yard Sprint (running start)
Strength	7. Arm Strength 8. Leg Strength 9. Back Strength
Balance	10. Sitting Balance 11. Balance Beam (walking) 12. Stick Test of Static Balance
Change of Position	13. Over and Under Side Horse 14. Squat Thrust 15. Howe Exercise
Change of Direction	16. Loop-the-Loop 17. Boomerang 18. Zigzag Run 19. Sidestep 20. Shuttle Run
Body Size and Form	21. Endomorphic) 22. Mesomorphic) — Somatotype 23. Ectomorphic) 24. Weight 25. Height

Table II

Variables Included in Each Part of the Analysis

Part	Variables
Part A	
Reference Tests	1. Simple Hand Reaction Time 2. Choice Reaction Time 3. Simple Foot Reaction Time 4. Speed of Arm Movement 5. Alternate Foot Tapping (standing) 6. Twenty-Yard Sprint (running start) 7. Arm Strength 8. Leg Strength 9. Back Strength 10. Sitting Balance 11. Balance Beam (walking) 12. Stick Test of Static Balance
Part B	
Experimental Tests	13. Over and Under Side Horse 14. Squat Thrust 15. Howe Exercise 16. Loop-the-Loop 17. Boomerang 18. Zigzag Run 19. Sidestep 20. Shuttle Run
Part C	
Supplemental Measures	21. Endomorphic) 22. Mesomorphic) — Somatotype 23. Ectomorphic) 24. Weight 25. Height

AERODYNAMIC FORCES WHICH INFLUENCE JAVELIN FLIGHT (An Abstract)

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Purpose of the Study The purpose of this study was to investigate those circumstances which have resulted in a drastic improvement of the world javelin record of more than 24 feet in the last six years.

It has been the general assumption that the sudden dramatic improvements in the record has been due to a superior throwing technique which has only recently evolved. Ganslen and Jarvinen (Ganslen, R. V. and Jarvinen, M.: "Finnish Javelin Throwing" Scholastic Coach, 19:8 Feb., 1950) summarized the basic mechanics of javelin throwing some years ago. No evidence has been presented from any source which suggests that modern javelin throwers have developed a superior technique. The original Finnish Javelin Style has dominated this event for almost 25 years.

It was hypothesized that the great improvement in this particular record has resulted from major changes in javelin design, most notable of which was a marked increase in surface area. The first wind tunnel investigation gave some support to this contention. A letter was thereupon dispatched to Track and Field News, the principle organ for dissemination of "new" track and field ideas. (Ganslen, R.V.: "Javelin Changes Needed" Track and Field News, 8:9, Oct., 1955)

The only aerodynamic study of track implements prior to our 1955 investigation of the javelin was Taylor's study (Taylor, James A.: "Behavior of the Discus in Flight" Intercollegiate Athletic Association Bulletin, Feb. 27, 1932) on the discus. Since no data, graphs, discussions of methodology or calculations were furnished in this rather casually written report, it is most difficult to evaluate its significance. Ganslen's discussion of discus aerodynamics (Ganslen, R. V.: "Mecanisme Du Lancer Du Disque" Education Physique Et Sport, 46:26, July, 1959) discusses this early work in detail. To the best of our knowledge, no one has ever investigated javelin aerodynamics in a wind tunnel prior to the 1955 investigation referred to in the letter above.

The Nature of the Problem.

The present National Collegiate Athletic Association handbook (National Collegiate Athletic Association Handbook, Official NCAA Track and field Guide, 1959. pp. 110-112) provides us with the specifications of the modern javelin. It may eventually be proven that these specifications

are inadequate to cope with the problems which have been created. To-day, it is very easy for throwers and manufacturers to manipulate their designs and still stay within the letter of the law.

The specifications are as follows:

Weight	800 grams
Maximum length	270 cms (8 ft. 10.299 inches)
Minimum length	260 cms (8 ft. 6.363 inches)
Minimum diameter	25 millimeters
Maximum diameter	35 millimeters
Cord grip must not exceed shaft circumference by more than 25 millimeters.	
Most forward position of center of gravity 33.3%	
Most rearward position of the center of gravity 40.8%	
Maximum length of cord grip 6.299 inches	

In the pre-1955 regulations the maximum length of the javelin was not specified nor were the maximum and minimum diameters set forth.

In the course of our measurements we have examined javelins which have surface areas as low as 1570cms/squared or a profile area of .846ft/squared, to javelins possessing 2449cms/squared or a profile area of 1.32ft/squared. Variations in the center of gravity position as great as five inches have been observed. Four Gill javelins of American manufacture, supposedly identical, had different surface areas as well as center of gravity locations. The difference in surface area was as great as 80cms/squared. The net difference in the size of the largest and smallest javelin was 36%.

Formerly all javelins fell into one general category as to shape; they were truncated cones tapering from the hand-grip fore and aft. Why are the throwers varying the shape in this manner? The answer is quite simple, to make the javelin travel farther through the air.

Method of Study.

Not trusting our own judgement and 25 years of model building and flying to guide us in these investigations, we have constantly sought the advice of experts such as Dr. Amon Andes, Chairman of the Aeronautical Engineering Laboratory at the University of Kansas, as well as Dr. Clark Millikan and Dr. W. W. Royce of the Daniel Guggenheim Aeronautical Laboratory at the California Institute of Technology. These people have been most generous with their time and advice. They have also called to our attention a few studies on tubular structure somewhat similar to javelins which have been tested in the National Advisory Committee for Aeronautics Research Laboratory at Langley Field, Virginia. Actually, there exists a dearth of studies of objects of this shape in wind tunnels, but interest in rockets will surely step up activity in this area. Munk (Munk, M.M.: Fluid Dynamics for Aircraft Designers, N.Y., Ronald Press, 1929, 198 pp.) was the first to carry out studies in a wind tunnel of dirigibles and objects of similar shape. Later studies of this nature

were made with a model of the airship Akron (Freeman, Hugh B.: "Force Measurements on a 1/40th Scale Model of The U. S. Airship 'Akron'" National Advisory Committee for Aeronautics Report #432, 1932). Munk was a pioneer in this area of research and his work is greatly respected.

A special collar was prepared into which the javelin could be clamped and this was suspended in the center of the wind tunnel. Since the javelins varied somewhat in respect to the position of their center of gravities, it was not always possible to tilt the javelins to the same maximum angle of inclination to the prevailing wind. (It is customary, to mount an object in the wind tunnel at its center of gravity.) The tunnel is six feet in diameter. In the 1955 and 1958 investigations, different mounting collars were used which influences the absolute figures on drag particularly. It is therefore suggested that the reader not make an attempt to compare the data from year to year directly, but such an examination will clearly indicate that the pattern of response was the same during the course of the three investigations.

Treatment of the Data. The complete report contains extensive graphical presentation of the data as well as all of the original wind tunnel data for the three investigations. A great deal of time was spent in seeking out a representative formula for computing lift and drag coefficients. The computation of the lift over drag ratios, L/D, can be done from raw data without introducing an error. Three formulas came to light which are used for obtaining the coefficients. Munk (Munk, op. cit., 152-153) used the following formula with dirigible models with and without tail structures.

$$C_D = \frac{\text{Drag}}{q (\text{vol})^{\frac{2}{3}}} \quad \begin{array}{l} \text{Lift and Drag are in pounds} \\ q \text{ is the dynamic pressure in pounds} \\ \text{per square foot} \end{array}$$

$$C_L = \frac{\text{Lift}}{q (\text{vol})^{\frac{2}{3}}} \quad \text{vol} = \text{volume of object}$$

Although the drag and lift coefficients we obtained with the conventional formula written directly above compare very favorably with those obtained on somewhat similar bodies in wind tunnels, Millikan and Royce (C. Millikan and Royce, W. W.: Personal Correspondence, Daniel Guggenheim Aeronautical Laboratory, Calif. Institute of Technology. 23 Nov. 1959) have suggested a more up to date formula which will give a better estimate of these coefficients. The formula we have used in this study was taken from the work of Allen and Perkins (Allen H. J. and Perkins, E. W.: "A Study of Effects of Viscosity on Flow Over Slender Inclined Bodies of Revolution." NACA Report #1048, 1951, p. 111). These calculations are contained in the complete report due to space limitations here.

A COMPARISON OF THE GILL AND EASTON-SANTEE #6 JAVELINS

Net Lift and Drag in lbs.

Surface areas:
Gill 1.01 ft sq
Easton-Santee 1.277 ft sq

Velocity ft/sec	0°		5°		10°		15°		20°		25°		30°	
	Lift	Drag	Lift	Drag	Lift	Drag	Lift	Drag	Lift	Drag	Lift	Drag	Lift	Drag
Gill	0	.08	0	.10	0	.13	0	.13	.14	.18	.43	.32	.50	.42
55.5 ft/sec														
Easton-Santee	0	.09	0	.09	0	.15	.01	.15	.22	.24	.44	.39	.70	.54
% Difference	0	-11.2	0	-10.0	0	+13.3	0	+13.4	36.5	25.0	2.2	18.0	28.6	22.0
Gill	0	.12	0	.13	0	.16	.12	.22	.42	.27	.69	.45	.97	.65
70.7 ft/sec														
Easton-Santee	0	.15	0	.17	0	.19	.18	.25	.41	.38	.75	.58	1.19	.85
% Difference	0	20.0	0	23.5	0	15.8	33.3	12.0	-2.4	28.9	8.0	22.4	18.5	23.5
Gill	0	.17	0	.19	0	.20	.21	.24	.41	.35	.85	.56	1.17	.81
80.0 ft/sec														
Easton-Santee	0	.19	0	.23	0	.25	.20	.28	.53	.49	.99	.70	1.46	1.07
% Difference	0	10.5	0	17.4	0	20.0	4.8	14.3	22.6	28.6	14.1	20.0	19.9	24.3
Gill	0	.19	0	.19	0	.21	.21	.28	.53	.38	1.00	.63	1.30	.91
85.5 ft/sec														
Easton-Santee	0	.20	0	.23	0	.27	.23	.33	.63	.51	1.17	.82	1.61	1.21
% Difference	0	5.0	0	17.4	0	22.2	8.7	15.2	15.9	25.5	14.6	23.2	19.3	24.8
Gill	0	.17	.01	.21	0	.21	.21	.31	.59	.31	1.10	.71	1.45	1.01
88.9 ft/sec														
Easton-Santee	0	.22	.02	.26	0	.27	.25	.34	.72	.52	1.28	.89	1.73	1.34
% Difference	0	22.8	0	19.3	0	22.3	16.0	8.8	18.1	40.4	14.1	20.0	16.2	24.7

$$C_L \left(2 \frac{S_b}{A} \right) \alpha = C_{d\alpha} = 90^\circ \left(\frac{A_p}{A} \right) \alpha^2$$

C_L = life coefficient

S_b = base area

C_d = coefficient drag at 90° of cylinder

A = reference area for coefficient evaluation

A_p = plan-form area

α = angle of attack or inclination

A is the base area

Results and Discussion.

To date we have data on eleven javelins including Swedish and Finnish Olympic javelins, Held javelins, Gill javelins of several different types and the Easton-Santee javelins, which are really a product of the Moon Manufacturing Company of Short Hills, New Jersey. In the complete report we have furnished detailed discussions of the physical characteristics of these javelins including surface area (total), profile area, volume, location of the center of gravity and the fineness ratio (relation of transverse width to length). Our complete report also includes all the personal correspondence pertaining to this investigation dating from late 1954 to date. The report also contains all the raw data from the wind tunnel investigations, although in aerodynamics it is only customary to report the results in terms of coefficients.

It is customary to report all aerodynamic data in the form of dimensionless coefficients. The commonly used coefficients being the coefficient of lift C_L and coefficient of drag C_D .

The above mentioned coefficients in addition to the Lift/Drag ratio are the three most fundamental coefficients in aerodynamics. By standardizing the various functions it is readily possible to compare research data from all parts of the world, on all sizes of models, in different size tunnels at different velocities without the necessity of examining the original data.

In order to move an object through air requires a force to overcome the resistance and to this we ascribe the term "drag." An airfoil, irrespective of how crude its shape, if tilted at any angle to a prevailing wind of sufficient strength, will be buoyed up by this force which we label "lift." In general, lift tends to increase more slowly with angle of inclination, whereas drag tends to be an accelerated curvilinear function, rising very abruptly after certain critical angles of inclination have been exceeded.

A most important function in aerodynamics is the relation or ratio of lift to drag. If the L/D ratio exceeds zero, the object in flight possesses some buoyancy. When the L/C ratio exceeds unity, the object in flight is operating at a maximum efficiency with respect to buoyancy. Below this level, the drag force is the dominant effect. If the L/D ratio is high and the forward thrust which creates this lift effect is adequate, the flight of any object thrown at some angle relative to the horizon will

be prolonged. An elongated parabolic flight curve path will result. In order that the flight "attitude" of the javelin be maintained, two factors must be considered, the pitching moment effect and the rotary effect of the javelin. Since the throwing of the javelin imparts a rotary motion to the javelin, as a consequence of the rapid supination of the hand during delivery, this rotary motion contributes gyroscopic stability to the javelin. That is to say, any attitudinal position the javelin tends to take in flight it also tends to maintain unless acted upon by some outside force, one of which is lift, another is drag and of course, the pull of gravity.

The pitching moment represents the force exerted by the lift which tends to rotate the javelin around its center of gravity or center of buoyancy. By varying the position of the center of gravity and the distribution of the surface area of the javelin, this pitching moment effect can be altered. A javelin, due to its forward position of the center of gravity at a point 33-40% of the distance from the nose, ALWAYS POSSESSES A NEGATIVE PITCHING MOMENT IN LEVEL FLIGHT. That is to say, the javelin always tends to nose down in level flight since there is no lift to counteract the pull of gravity. Another way of saying this is to say that the javelin is always in a position of unstable longitudinal equilibrium. The javelin must land point first! The new javelins have been so altered as to reduce the sensitivity of the javelin to pitching forward. In other words, the negative pitching moment effect has been minimized. This factor has contributed materially to the new records which have been set.

Conversely, if the center of gravity is placed near its nose and the javelin does not develop much lift, and pitching moment (in terms of time as a factor) is so effective that the javelin will nose over prematurely. Thus, two javelins with different pitching moments thrown at the same angle with identical velocities will not travel the same distance. The pitching moment "effect" is a function of a force working over a distance during a period of time! Since the pitching moment is altered by variations in the "lift" of the javelin, it is most difficult to predict in advance the distance of a throw when the lift and/or angle or projection are not constant. Furthermore, we observe that a javelin, which seems to be coming in for a perfect landing, point down, suddenly lands flat. This is obviously due to air turbulence which may be caused by a deflection of the surface wind upward under the nose of the javelin (equivalent to changing the angle of attack in a wind tunnel). In other words, at a most critical moment, the pitching moment of the javelin has been inadvertently altered. A record is thus lost!

We are therefore forced to note that a difference of 20-40% in the net lift (which may be represented by the L/D ratio) is a critical factor in comparing the relative efficiency of the javelins. This also means, that if the surface area and lift of a javelin are changed and the center of gravity in both implements is the same, they will STILL POSSESS DIFFERENT PITCHING MOMENTS. This may be a critical factor in determining the overall flight path of the implement even if the thrust

force at the moment of departure and the initial thrust angles of the two javelins being compared is identical

It is immediately evident that the peak L/D ratio, also the stalling point of the javelins, is influenced by both wind velocity and angle of inclination. It is also quite evident, in the case of the Easton-Santee #6 javelin, that this javelin does not reach its peak lift or "stall" below 30° at 70.7 ft/sec. Unfortunately, the tunnel throat diameter of six feet, did not permit us to increase the angle of the javelin to the relative wind until this breaking point could be observed.

It is interesting to note, that at 88.9 ft/sec the Easton-Santee javelin develops as much lift at 20° as it does at 30° and 70.7 ft/sec. In other words, with more velocity greater lift at a lesser angle. This has important implications for coaching.

Four javelins tested in 1955 at 67.2 ft/sec consistently developed their peak L/D ratios at approximately 20° .

We have examined one javelin which only achieved as L/D ratio at 88.9 ft/sec and an angle of 25° , at all other angles and velocities the L/D ratio of this implement was still increasing.

At this writing the mathematical analyses of the data on the javelins is being completed. In all, eleven javelins have been investigated in the wind tunnel. These javelins, differ in either surface area or volume from 35-40%; yet, according to the present day interpretation of the National Collegiate Rules, they are all legal implements!

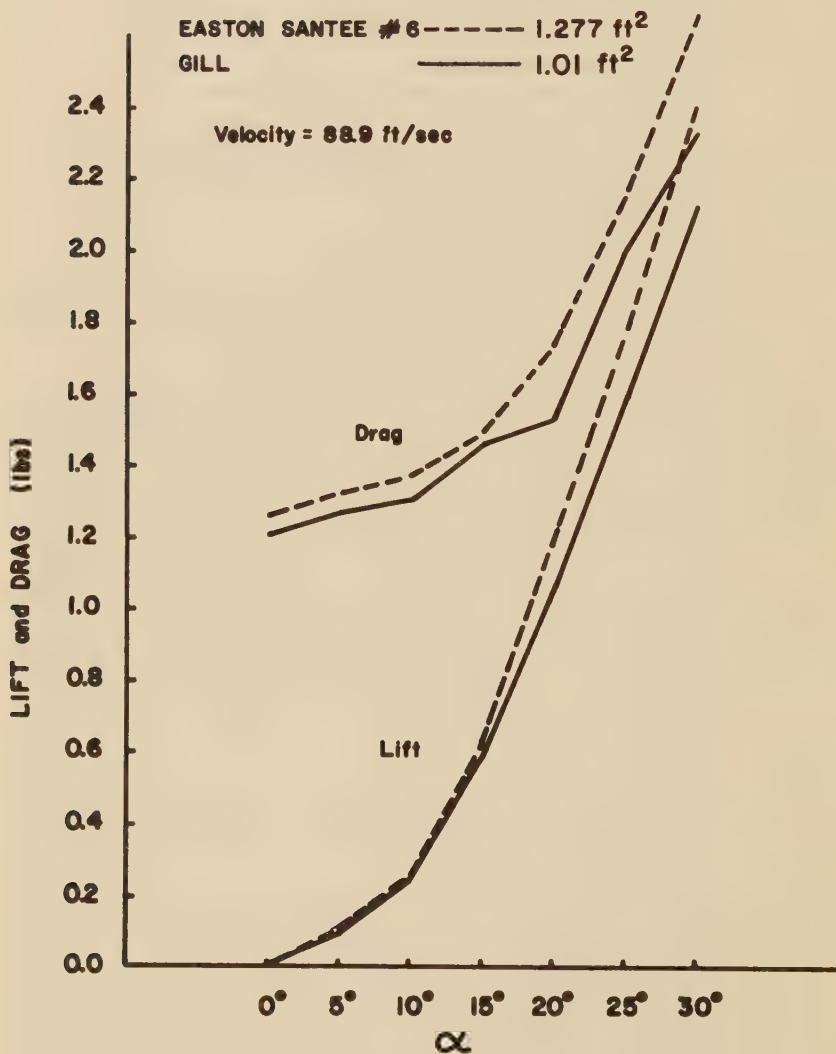
The data points up rather clearly that the lift, drag and pitching moment coefficients can be materially altered in several ways: (A) Increasing the surface area, (B) Altering the distribution of this surface area, (C) Altering the position of the center of gravity of the javelin.

The similarities in modern javelins produced by different manufacturers is superficial at best. When one compares the pre-1955 javelins with the modern implements there is scarcely any similarity at all. The physical appearance as well as the behavior of the javelins differ.

It is imperative that realistic and rigidly enforced restrictions be placed upon javelin design if there is to be any basis for the comparison of records from one country or era to another. The writer issued a stern warning in this direction in 1955, after a preliminary wind tunnel investigation; this warning was ignored. Unless these regulations are established at an early date, we can anticipate a new world record in the javelin in excess of 300 feet within a 5-10 year period. This is an absolute certainty!

One simple graph, which is a plot of raw data, has been included for informational purposes. The real differences in the lift and drag will be more dramatic when the data is corrected for surface area and dynamic pressure of the air and the lift and drag coefficients are presented.

EFFECTS OF JAVELIN SIZE ON LIFT AND DRAG



ELECTROMYOGRAPHIC STUDY RELATIVE TO MOVEMENTS OF THIGH AT HIP JOINT

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This paper is a report of a study which investigated, by means of electro-myography, the function of the long head of the biceps femoris, the rectus femoris, the semitendinosus, and the tensor fasciae latae in specified movements of the thigh at the hip joint.

Among the investigators who have made electromyographic studies of the function of these muscles are Max D. Wheatley and William Dean Jahnke ("Electromyographic Study of the Superficial Thigh and Hip Muscles in Normal Individuals," *Archives of Physical Medicine*, August, 1951) and Charles H. McCloy ("Some Notes on Differential Actions of Partite Muscles," *Research Quarterly*, December, 1946).

In recent years electromyographic studies have revealed new facts about muscle function. The recordings of muscle action potentials by means of surface electrodes enables us to find which superficial muscles actually work during specific movements. No attempt is made in the present study to compare the work output of these muscles in a quantitative sense. The recordings of action potentials are interpreted only in the grossest qualitative sense as an index of the amount of contraction in the muscles.

PROCEDURE

A Grass electroencephalograph (Model III-D) equipped with four channels and with four ink-writing recorders was used for recording the action potentials. Recordings were taken with the paper passing through the ink recorders at 30 mm. a second.

The motor points of the muscles were located by means of a faradic stimulator. The hair on the skin in the area of the motor point was painted with an imitation compound of tincture of benjoin. (This solution, a combination of rosin, ethyl alcohol, and basic fuchsin, is used by athletic trainers to increase the adherence of tape to the skin). The electrodes, about $\frac{3}{8}$ inch in diameter, were filled with Cambridge electrode jelly and placed approximately 2.5 cm. equidistant from the motor point of the muscle being tested. The electrodes were positioned in such a way that a line drawn from the center of one electrode to the center of the other was approximately parallel to the muscle fibers. Bensonite number 3 paste was applied to small square of crinoline, and

crinoline was placed over the electrode and held in place by two strips of adhesive tape 1/2 inch wide. One end of each strip of tape was split, and the split ends were placed astraddle the wire leading from the electrode. The two strips of adhesive were so placed that the split ends overlapped. The electrode resistance was kept below 10,000 ohms when the recordings were taken.

The amplification of the electromyograph was calibrated at the beginning and at the end of each period of recording for each subject.

Electromyograms from the long head of the biceps femoris, the rectus femoris, the semitendinosus, and the tensor fasciae latae were obtained from the following movements of the right thigh: extension, with leg flexed; extension-adduction, with leg flexed; extension-adduction with leg extended; flexion-adduction, with leg flexed; flexion-adduction, with leg extended; extension-abduction, with leg flexed; extension-abduction, with leg extended; flexion-abduction, with leg flexed; flexion-abduction, with leg extended; eversion, with leg flexed; eversion, with leg extended; inversion, with leg flexed; and inversion, with leg extended. With the exception of the last four movements named, readings were taken with the limb placed first in eversion, then in mid-position and finally inversion, relative to the longitudinal axis of the movement. An actual total of 40 movements was performed by each subject, from which muscle action potentials were recorded.

Fifteen men served as subjects. Three of the men served as subjects in a pilot study, and the other twelve men served as subjects for the formal study. Records of each movement, executed three times, were obtained from each subject.

The action of each muscle for each of the 40 movements were recorded.

The greatest excursion of the writing pen, indicating maximum amplitude that could be obtained for a given muscle, was used as a guide in standardizing the instrument settings.

Four ratings were established as a basis for evaluating the action of each of the muscles involved.

A pen excursion of 1/4 the maximum possible for a given muscle was rated as a small amplitude.

An excursion of 1/2 the maximum was rated as a medium amplitude.

A 3/4 excursion was rated as great amplitude.

An excursion greater than 3/4 was rated as a very great amplitude.

The degree to which each of the four muscles contributed to the 40 movements was indicated by the electromyograph recordings. Since the same electromyographic setting was retained for a given muscle for all 40 movements, it was possible to compare the degree to which this muscle performed when each of the 40 movements was executed.

Since different settings were used for the different muscles, no between-muscle comparisons were made.

ANALYSIS OF DATA

The most reliable readings obtained were selected for final analysis. From these recordings, those that were most representative of the total group of subjects were photographed and are presented in the original study.

Ratings of small, medium, great, and very great were assigned each muscle for each of the 40 movements, with the exception of very small potentials which were disregarded.

In general the results compared favorably with those obtained by Wheatley & Jahnke, and McCloy, and corroborated the interpretation of muscle function found in most anatomy texts.

The movements of the thigh, and the muscles that registered action potentials of at least medium amplitude, appear in the following tabulation, in which x's not encircled indicate that the muscle recorded action potentials in at least two thirds of the movement and the encircled x's indicate that the muscle recorded action potentials in only one third of the measurement.

<u>Movement of Thigh</u>	<u>Biceps Femoris</u>	<u>Rectus Femoris</u>	<u>Semi- tendinosus</u>	<u>Tensor Fasciae Latae</u>
Extension, with leg flexed			x	
Extension, with leg extended	x	x	x	
Flexion, with leg flexed		x		x
Flexion, with leg extended		(x)		x
Extension-Adduction with leg flexed	(x)		x	
Extension-Adduction with leg extended	(x)	(x)	x	
Flexion-adduction with leg flexed		(x)		x
Flexion-adduction with leg extended		(x)		x

<u>Movement of Thigh</u>	<u>Biceps Femoris</u>	<u>Rectus Femoris</u>	<u>Semi- tendinosus</u>	<u>Tensor Fasciae Latae</u>
Extension-abduction, with leg flexed	x			x
Extension-abduction, with leg extended	(x)	(x)	x	(x)
Flexion-abduction, with leg flexed		x		x
Flexion-abduction, with leg extended		(x)		x
Everson, with leg flexed	(x)			
Everson, with leg extended	x			
Inversion, with leg flexed				x
Inversion, with leg extended				x

COMMENTS

The rectus femoris, a flexor of the thigh, acted during extension, and extension-and-adduction when the leg was held in extension. In this case, it appeared that the muscle was acting as an extensor of the leg at the knee.

The tensor fasciae latae, a flexor of the thigh, acted during extension-and abduction. Here it was performing in its capacity as an abductor. Many anatomy tests do not ascribe abduction to the function of the tensor fasciae latae.

THE FATIGUE EFFECTS OF CONTINUOUS BALLISTIC MOVEMENT VERSUS SUSTAINED EFFORT IN NON-BALLISTIC PERFORMANCE

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Definition of terms:

Endurance has been characterized as the capacity of the body to maintain effort with maximum recovery during play, work or exercise. Specifically, there are many kinds of endurance in relation to particular skills, but generally, endurance has been classified as: (1) muscular or local endurance, and (2) organic stamina, or heart-lung and circulatory endurance. There are, of course, many other factors such as the effects of skill and glandular factors which are related to the onset of fatigue. One type of muscular endurance emphasized the ability to do very strenuous work in a relatively short period of time which builds up within the body a large oxygen debt and results in local fatigue quickly. Such endurance is manifested in ability to perform the pull-ups or push-ups or do similar hard muscular movements as work or exercise. Another kind of muscular endurance is characterized by the performance of such tests as the 100-yard dash or continued maximum vertical jumps in which effort is sustained through continuous exertion at maximum effort and speed and there is little recovery from fatigue, hence postponement of the oxygen debt. There seems to be a close relationship between speed, effort and strength of performance and muscular endurance.

Organic stamina, as a kind of endurance, is perhaps less dependent upon external muscular condition and more upon the organic fitness of the heart, lungs, circulatory and glandular systems in compensating for continued effort. An important differentiation as compared to muscular endurance is that speed and strength of movement are not primary considerations, but rather the ability to continue exertion at the individual's optimum speed, whether or not the individual is naturally fast or slow. An individual performs only as fast as he judges to be the optimum rate for the performance to be accomplished, but if he can perform at this optimum speed for relatively long periods of time, his endurance is considered good. Such performance is characterized by cross country running, mountain climbing, long extended marches and in such tests perhaps as the five-minute Harvard step test.

Ballistic and Non-Ballistic Movements. As early as 1895 Richet¹ showed that such movements as kicking a ball characterized a contraction

¹ M.P. Richet, "Note: sur la contraction du muscle quadriceps dans l'acte de donner un coup de pied." Comptes Rendus de la Societe de Biologie 2: 204-205.

ballistique in which the real impetus resulted from momentum of the leg and body after actual muscular contraction had ceased. Since then the concept Ballistic has been referred to by researchers to mean power movements of throwing, striking, kicking, sprinting, jumping, etc. in that the body or its parts as an instrument is propelled through space rather than moved by the contracting muscles. The moving part or object is impelled or projected and carried by momentum. This momentum phase is free from muscular contraction. Thus a great many movements in physical education and athletics are characterized as skilled ballistic movements. For example, the vertical jump is a result of a contraction ballistique and the height attained is a result of the momentum of the body after muscular contraction has ceased.

So called non-ballistic movements have been termed as tense, ballast-shifting or postural movements at moderate or optimum rates where the forces opposing resistance or gravity are muscular contraction at slower tempos. For example, the Harvard step test is like walking up and down a hill or stairs where the forces opposing gravity are muscular contraction. The muscular tension required to keep the body moving up and down is about the same, yet the energy required to step up is approximately one half greater than the energy to step down. In reality any form of human locomotion seems to be a complicated combination of ballistic and non-ballistic movement, hence differentiation is somewhat arbitrary.

PURPOSE OF THE STUDY

The purpose of this study was to investigate the correlative aspects of long continued vertical jumps at individual maximum effort with the short form of the Harvard step test which purportedly measures hard sustained effort.

SELECTION OF TESTS

Two tests were selected on the basis of Stetson's² criterion of classification of movement. Relatively rapid movements of two types were selected; one the step test in which it was assumed that there was tension in opposing muscle groups during the movement and the Vertical jump in which the height attained is effected by the momentum of the body after the muscular contraction has taken place.

Whether this differentiation in classification of movement is valid is controversial but such was the research hypothesis of the study. Two other criteria were considered in selection of the tests-reliability and validity. The reliability of the step test and vertical jump when practiced

² R. H. Stetson "Mechanism of the Different Types of Movement" Psychological Monographs, 32 (1923) 18-20

and when two or more independent trials were correlated, proved and have been proven to be sufficiently high for purposes of individual testing; and, hence, for the purpose of the study. In terms of validity, the vertical jump, when practiced, has been found to be high for power events. The validity of the step test has been questioned and is not clear. However, its cadence of thirty steps per minute on a 20-inch stool for five minutes is very strenuous, a criticism of the test for many purposes, but a desirable aspect for the purposes of this study since it was used as a basis for the selection of subjects. The short form of the Harvard step test was selected for this study since there is some research evidence regarding its advantages over the long form.³ With this method of test administration, the pulse is taken from one minute to one minute and thirty seconds immediately following the exercise.

SELECTION OF SUBJECTS

The men selected as subjects for the study were students enrolled at the University of California at Los Angeles. The criterion for selection was whether the subject could perform five minutes on the Harvard step test. They were taught the techniques of the test; then, tested for selection or rejection. This gave a more homogeneous group, endurance and physical fitness-wise, for investigation purposes. Several hundred students had to be tested before one hundred subjects were selected — the number used in the study. This group ranged in age from eighteen to thirty, but was not considered to be a random sample due to the process of selection.

TEST ADMINISTRATION

The subjects were tested individually after learning the techniques of the tests. The short form of the Harvard step test was administered first. Within three days, the subjects were required to take the continuous vertical jump test. The following week, the tests were administered again in the same order.

The Harvard Step Test. The step test was administered as prescribed by Brouha^{4,5}. The subject stepped up and down on a 20-inch

³ Peter V. Karpovich, Physiology of Muscular Activity, 4th ed. Philadelphia, W. B. Saunders Co., 1953, p. 270.

⁴ Lucian Brouha, "The Step Test: A Simple Method of Measuring Physical Fitness for Muscular Work in Young Men," Research Quarterly Vol. 14, No. 1 March, 1943.

⁵ Lucian Brouha, Fradd, Norman W., and Savage, Beatrice M., "Studies in Physical Efficiency of College Students," Research Quarterly, Vol. 15, No. 3, October 1944.

bench at thirty steps per minute for five minutes. A metronome was used to establish the cadence. Immediately following the exercise, the pulse was taken from one to one minute and thirty seconds. To facilitate scoring, the table for Harvard step-up test (short form) was used.

The Continuous Vertical Jump: A variation of the vertical jump was used in that a series of fifty consecutive jumps were utilized as the data. The jump was measured with a simplified form of the device designed and adequately described by Henry.⁶ His suggestion for using an automatic fly-casting reel, of the kind used by fishermen, was adopted. The subject jumped continuously, at intervals of six seconds for five minutes. The test administrator counted the time with the use of a stop watch. After four seconds had elapsed, the command, "ready" was given and at six seconds the subject was given the command, "jump". This gave a total of fifty (50) jumps in five minutes. An observer recorded each jump and the heart rate was taken from one to one and one-half minutes immediately after the exercise.

Some error results from reading the scores and in the use of any device in which a line extends from the jumper's head to the recording device for measuring the height jumped. There is a tendency for some performers to jump slightly to the side, forward or backwards. However, as will be noted, the reliability coefficients were satisfactorily high.

ANALYSIS OF THE DATA

Variables. The data as collected in this study were age, height, weight, Harvard step test heart rate, Harvard step test fitness score, leg dip in the jump, height of the vertical jump, and heart rate counted from one to one and one-half minutes after fifty vertical jumps.

Combined Variables. The above scores were combined in several ways for purposes of further analysis:

1. Step test scores, first and second trials.
2. Average heart rate after the step test.
3. Average heart rate after 50 jumps.
4. Average leg dip of 50 jumps.
5. Average jump of 50 consecutive jumps.
6. Drop-off score between first 10 jumps and last 40 jumps.
7. Drop-off score between 5 best jumps and worst 5 jumps.

It was desired to determine reliability of these measures, the correlation of jumping endurance with endurance measured by the Harvard step test and other pertinent relationships among the variables. Hence, Pearson Product-Moment correlations were calculated for these purposes.

The results of this analysis are reported below:

⁶Franklin Henry, "The Practice and Fatigue Effects in the Sargent Test,," Research Quarterly, Vol. 13, No. 1, March, 1942, pp. 16-29.

TABLE I

Reliability of the Tests

Variables	Coefficient of Correlation
Harvard step-test (Trial I vs Trial II)	$r = .81$
Best jump (Trial I vs Trial II)	$r = .89$
Average 50 jumps (Trial I vs Trial II)	$r = .93$

TABLE II

Correlations Among the Selected Tests

Variables	Coefficient of Correlation
Step test heart rate vs vertical jump heart rate	$r = .515$
Step test score vs best jump	$r = .561$
Step test score vs average of 50 jumps	$r = .592$
Step test vs Drop-off score:	
(a) Drop-off between first 10 and last 40 jumps	$r = .571$
(b) Drop-off between best 5 and worst 5 jumps	$r = .540$
Heart rate after 50 vertical jumps vs drop-off-score	$r = .710$

TABLE III

Other Intercorrelations

Variables	Coefficient of Correlation
Body weight vs best jump	$r = -.25$
Height (Stature) vs best jump	$r = .06$
Age vs average of 50 jumps	$r = .001$
Average 50 leg dips vs average 50 jumps	$r = .12$

THE FINDINGS

The findings of the study are summarized:

1. The device constructed measured with considerable accuracy 50 consecutive vertical jumps (leg dips and height in inches jumped).
2. The reliability of the step test and vertical jumps were found to be sufficiently high for purposes of the study.
3. Only low to moderate correlations were found between the kind of endurance measured by the Harvard step test and endurance as measured by sustained jumping.
4. In performing a jump (explosive movement) every six seconds

there seems to be more recovery from fatigue than was evidenced in the step test which required continued effort for five minutes.

5. As has been established in other studies age, height, weight and degree of crouch or leg dip were not significantly correlated with any aspect of the vertical jump as measured.

CONCLUSIONS

1. It was concluded that the fatigue effects of continued explosive effort as measured are not strictly comparable to such performances as the Harvard step test where perhaps there is less chance of recovery during the exercise.
2. It was concluded that there was some degree of correlation between the heart rate counted from one minute to one minute and thirty seconds after a series of 50 consecutive vertical jumps with the drop-off scores which would seem to result from the fatigue effects of jumping.

RECOMMENDATIONS

It is recommended that the nature of fatigue curves be studied of these and similar data for comparison with those resulting in other activities and performances. The findings of this investigation may or may not be applicable to all ballistic and non-ballistic performance. For generalization there must be further research to establish the facts among a variety of movements. At this point the concept of specificity is only further emphasized.

THE EFFECTIVENESS OF TWO METHODS OF EXERCISE USED IN THE TREATMENT OF BACK PAIN*

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STATEMENT OF THE PROBLEM

The primary purpose of this study was to compare the effectiveness of two methods of exercise used in the treatment of back pain. The comparisons were made in terms of (1) measurements of strength, (2) measurements of flexibility, and (3) verbal reports by the subject. Two additional purposes were the following: (1) to make electromyographic analyses of movements required for each method of exercise and (2) to determine through the use of the Minnesota Multiphasic Personality Inventory any personality traits that might be characteristic of subjects with back pain.

* This study was conducted in the Research Laboratory of the Physical Education Department at the State University of Iowa in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

PROCEDURE FOR OBTAINING DATA

In this section are presented the procedures by which (1) strength and flexibility measurements were collected on sixteen subjects with back pain and later used to compare the effectiveness of two methods of exercise in the treatment of back pain; (2) electromyograms on sixteen subjects with back pain were collected and later used to analyze the functions of the longissimus dorsi, iliocostalis lumborum, gluteus maximus, and rectus abdominis in executing the pregluteus maximus, and rectus abdominis in executing the prescribed exercises; and (3) scores on the Minnesota Multiphasic Personality Inventory for sixteen subjects with back pain were collected and later used to determine whether or not any of the subjects had acute personality difficulties.

Subjects. Sixteen males with back pain served as subjects: twelve were in the required physical education program, three were athletes, and one was a pharmacist in Iowa City, Iowa. The age range of fourteen of the subjects was eighteen to twenty-one years, and the ages of the other two subjects were thirty-two and thirty-five years.

All subjects were given a medical examination (including x-ray) by a member of the staff in the Department of Orthopedics. If the diagnosis so indicated, the subject was permitted to take part in the exercise program.

The exercise program for all the subjects was based upon movements of trunk flexion and trunk extension against resistance. The exercise program for eight of the subjects was based on concentric muscular contraction and this group was referred to as the concentric-contraction group. The exercise program for the other eight subjects was based on static muscular contraction and this group was known as the static-contraction group. The subjects exercised three times a week for six weeks. The subjects in both groups executed five warm-up exercises each period before exercising against resistance.

Method for Static-Contraction Group. For the trunk-flexion exercise against resistance the eight subjects in the static-contraction group were in the supine position with the lower legs flexed at the knee joints and the hands clasped behind the neck. The subjects then flexed the trunk until it was about forty-five degrees above the horizontal. This position was maintained against resistance for a period of six seconds, and then the trunk was lowered to the starting position. For the trunk-extension exercise against resistance the subjects were in the prone position on an angled platform (an angle of about 115 degrees was formed between the thighs and the trunk), and the hands were clasped together on the small of the back. The subjects then extended the trunk until it was in a position of 180-degree alignment with the lower limbs. This position was maintained against resistance for a period of six seconds,

and then the trunk was lowered to the starting position. For the trunk-extension exercise against resistance the subjects were in the prone position on an angled platform (an angle of about 115 degrees was formed between the thighs and the trunk), and the hands were clasped together on the small of the back. The subjects then extended the trunk until it was in a position of 180-degree alignment with the lower limbs. This position was maintained against resistance for a period of six seconds, and the trunk was then lowered to the starting position. This method of exercise was adopted from the studies that were done by Hettinger and Muller.¹

Method for Concentric-contraction Group. For the trunk-flexion and trunk-extension exercises against resistance the eight subjects in the concentric-contraction group used the same starting positions as those described for the static-contraction group. The subjects in the concentric-contraction group performed the trunk-flexion exercise against resistance by flexing the trunk until it was erect and then lowering the trunk to the starting position. The subject attempted to execute the exercise ten times against a prescribed amount of resistance. The trunk-extension exercise against resistance was performed by extending the trunk until it was in a position of 180-degree alignment with the lower limbs and then lowering the trunk to the starting position. The subject attempted to execute the exercise ten times against a prescribed amount of resistance.

Strength Measurements. Measurements of abdominal strength in pounds were obtained at the beginning of the experiment and again at the end of the experiment. The instrument used for obtaining these measurements was a cable tensiometer. The exercise positions for trunk flexion and for trunk extension (as previously described) were the positions used to obtain the measurements of abdominal strength and of back strength.

Back/abdominal ratios were also computed at the beginning of the experiment and again at the end of the experiment. Using the measurements of back strength and abdominal strength, a back/abdominal ratio was computed for each subject by dividing back strength by abdominal strength.

Flexibility Measurements. Measurements of trunk flexion and trunk extension in degrees were obtained at the beginning of the experiment and again at the end of the experiment. The procedure used for obtaining these measurements was as follows:

A 35-mm. camera was used to photograph the subject in positions of trunk flexion and trunk extension. The camera was placed so that the lens was about in alignment with the center of gravity of the subject. Measurements of the position of the lens were made and recorded; thus, for each photograph taken during the study, the position of the lens with reference to the subject remained unchanged.

Landmarks were placed at the seventh cervical vertebra, the second

¹ Hettinger, Th., and E. A. Muller. "Muskelleistung und Muskeltraining," Arbeitsphysiologie XV (October, 1953), 111-126.

sacral vertebra, the top of the greater trochanter, and at a point midway between the anterior and posterior surfaces of the knee and on a level with the superior border of the patella. A triangular, metallic pointer covered with black friction tape was anchored to each of the vertebral landmarks, and each of the other two landmarks was marked on the left side of the body by a small dot made with a black skin-pencil.

The subject was photographed in the standing position with the left side of the body facing the camera. The position of the subject was fixed by having the heels of the feet of the subject in contact with two black friction-tape markers placed in a fixed position on the floor. The subject was instructed to allow the arms to hang free and, while keeping the legs fully extended at the knee joints, to bend the trunk forward and downward as far as possible. Two practice movements were executed for stretching purposes. The subject then performed the movement two more times and each time was photographed when he reached the point of maximum trunk flexion. After each photograph the trunk was raised to the upright position. The subject was then instructed to place the right hand under the left armpit and the left hand on the right shoulder and to lean as far backward as possible. Two practice movements were allowed for stretching purposes. The subject then performed the movement two more times and each time was photographed when he reached the point of maximum trunk extension.

By means of a 35-mm. slide projector, each photograph of the subject was projected on a sheet of paper 8-1/2 by 11 inches; and the landmarks, as identified by the black pointers and black dots, were plotted on the paper. For each sheet a straight line that extended from the landmark at the knee to a point through and beyond the landmark at the greater trochanter was drawn. Another line was drawn from the landmark at the seventh cervical vertebra through and beyond the landmark at the second sacral vertebra and was extended until it intersected the first line. The angle between these two lines for each of the two trunk flexions and two trunk extensions was measured at the point of intersection of the two lines. The higher recording for the trunk flexion and the higher recording for trunk extension were used as the measurements of flexibility.

Verbal Reports. At the conclusion of the experiment each subject was asked to make a statement about whether or not the exercise program had seemed effective in the alleviation of back pain.

The electromyogram recordings for each of the sixteen subjects were made with a Grass Model III-D Electroencephalograph. The muscles studied included the longissimus dorsi, the iliocostalis lumborum, the gluteus maximus, and the rectus abdominis. The movements performed were similar to those used in the exercise program, i.e. trunk flexion and trunk extension against no resistance and against resistance. Also, recordings were taken for static muscular contraction and concentric muscular contraction.

The Minnesota Multiphasic Personality Inventory was administered

to each subject in accordance with the instructions in the test booklet. Each test was then scored by the use of standard keys prepared for each personality scale.

ANALYSIS OF DATA

In this section is presented a summary of the following analyses of the data collected on the sixteen subjects with back pain: (1) the statistical analysis of the strength and flexibility measurements; (2) the analysis of the electromyograms registered by the longissimus dorsi, the iliocostalis lumborum, the gluteus maximus, and the rectus abdominis; (3) the analysis of the scores made on the Minnesota Multiphasic Personality Inventory; and (4) the analysis of the verbal reports made by the subjects.

Abdominal Strength. For both the concentric- and static-contraction groups means were computed for the initial abdominal-strength measurements and the final abdominal-strength measurements. The means of the final abdominal-strength measurements were higher than the means of the initial abdominal-strength measurements. By applying the *t* test for small related samples, it was found that the difference between the means for the subjects in the concentric-contraction group and for those subjects in the static-contraction group is statistically significant (*P*'s of .001 and .01 respectively). The difference between the mean gain of the concentric-contraction group and the mean gain of the static-contraction group is, according to the *t* test for small independent samples, not statistically significant (*P* = .07).

Back Strength. For both the concentric- and static-contraction groups means were computed for the initial back-strength measurements and the final back-strength measurements. The means of the final back-strength measurements were higher than the means of the initial back-strength measurements. By applying the *t* test for small related samples, it was found that the difference between the means for the subjects in the concentric-contraction group and for those subjects in the static-contraction group is statistically significant (*P*'s of .001 and .01 respectively). The difference between the mean gain of the concentric-contraction group and the mean gain of the static-contraction group is, according to the *t* test for small independent samples, not statistically significant (*P* = .30).

Ratio of Back to Abdominal Strength. For the concentric-contraction group the mean of the initial back/abdominal ratios is 3.31/1, and the mean of the final ratios is 2.38/1. For the static-contraction group the mean of the initial ratios is 2.95/1, and the mean of the final ratios is 2.46/1. For the two groups combined the mean of the initial ratios is 3.13/1, and the mean of the final ratios is 2.42/1.

Trunk Flexion. For both the concentric- and static-contraction groups the mean of the final trunk-flexion measurements of flexibility was higher than the mean of the initial trunk-flexion measurements of flexibility, and the difference between the means is statistically significant (*P*'s of .02 and .01 respectively). The difference between the

mean gains for the two groups is not statistically significant ($P = .08$).

Trunk Extension. For both the concentric- and static-contraction groups the mean of the final trunk-extension measurements of flexibility is higher than the mean of the initial trunk-extension measurements of flexibility, but the difference between the means for the concentric-contraction group is not statistically significant ($P = .17$). The difference between the means for the static-contraction group is statistically significant ($P = .04$). The difference between the mean gains for the two groups is not statistically significant ($P = .57$).

Combined Trunk Flexion and Trunk Extension. For both the concentric- and static-contraction groups the mean of the final combined trunk-flexion and trunk-extension measurements of flexibility was higher than the mean of the initial combined trunk-flexion and trunk-extension measurements of flexibility, and the difference between the means is statistically significant (P 's of .02 and .01 respectively). The difference between the mean gains for the two groups is not statistically significant ($P = .08$).

Electromyograms. The electroencephalograph was calibrated after each recording session in order that the size of the pen excursion for a prescribed movement at a specified amplification might be compared to the calibration signal at the same amplification setting. This made it possible to determine the amount of microvoltage recorded during any prescribed movement.

The electromyographic analyses yielded the following findings: In the extending of the trunk, both the longissimus dorsi and the iliocostalis lumborum registered, for both methods of exercise, potentials of greater amplitude than did the gluteus maximus. For any given subject and for both methods of exercise, the amplitude of the potentials registered by each of the three muscles increased as the amount of resistance was increased. In the flexing of the trunk the rectus abdominis registered potentials for both methods of exercise. For any given subject and for both methods of exercise, the amplitude of the potentials registered by the rectus abdominis increased as the amount of resistance was increased.

Minnesota Multiphasic Personality Inventory. For each of nine scales in the MMPI, the mean T scores of the sixteen subjects with back pain were compared with the mean T scores of 408 Midwest Iowa male college students. The difference between the means for the two groups is not statistically significant (P 's of .09 to .90).

Verbal Reports. All the subjects reported favorably on the effectiveness of the exercises in the alleviation of back pain.

GENERALIZATIONS

On the basis of the results obtained on strength measurements and on the basis of the favorable reports for both methods of exercise in the alleviation of back pain in this study, it would appear that (1) in the treatment of back pain either the concentric- or the static-contraction

method may be used in the early phases of treatment when movement by the patient might be restricted; (3) a back/abdominal ratio of between 2/1 and 2.5/1 might be used as a ratio for which to strive when exercising subjects in an attempt to bring about an alleviation of back pain.

AN EXPLORATORY STUDY OF NON-ATHLETES WITH HIGH MOTOR ABILITY

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The relationship of personality development to physical skill and participation in physical activity is an intriguing problem. What the ability to move with ease and confidence means in terms of personal behavior is still a matter of conjecture, but athletic participation in adolescent groups has been demonstrated as having great prestige value. Of interest, then, are students who possess basic physical skills but do not elect participation in intramural or interschool programs. Do these students seek participation in physical activity outside of institutionally organized programs?

Purpose. The purpose of this investigation was to study the interest patterns of a group of subjects who demonstrated a high level of physical skill but who did not participate in institutionally organized physical activity unless required to do so. The subjects were studied to determine the importance of physical activity to them.

PROCEDURE

Motor ability. The subjects were eleven Pomona College sophomore, junior, and senior male students. The physical skills test battery administered to freshman students at Pomona College was taken as the measure of motor ability of the subjects. The total battery score was the sum of the unweighted standard scores of five events: pull-up, bar vault, running broad jump, ball throw, and 100 yard dash. A subject was marked high in motor ability if he scored in the upper third of the distribution of total battery scores for the three years considered. Most of the subjects performed well in all events of the test but were not outstanding in any one event. Four subjects had poor scores in the ball throw which might indicate that they were at a disadvantage in American team games.

Subjects. From a group of 106 students classified as high in motor ability, eleven subjects with minimum athletic participation records were selected. Four individuals had been part of a high school athletic team during one season; four other subjects had participated in a minimum number of freshman college intramural contests; none of the group had been a member of an intercollegiate team. These were subjects with a

minimum, and certainly not a continuing, interest in either organized interschool competition or college intramural contests.

The subjects ranged in height from 5'9" to 6'1" and in weight from 145 to 175 pounds. They could be characterized as either slender but strong, or stocky but not heavy.

Data collection. College records were used to gather preliminary information. Subjects then participated in a thirty minute interview, structured and conducted by the author, focused upon their leisure time interests in the three areas of family, school, and personal life. Certain standard questions were asked but the interviewer and subjects were free to pursue those areas which seemed most important. The final results seemed freely given with genuine interest in all but two cases; these two subjects were extremely shy and seemed to have little to communicate.

RESULTS

Family relationships. The most striking observation related to family life was the unusual degree of stability. There were no divorces and very few residence changes, fluctuations in family incomes, or or changes in fathers' occupations. In addition, there had been no prolonged separation of family members, no other individuals living with the family, and only two working mothers.

In eight of the families interest in physical activity was centered around outdoor activities such as camping, hiking, skiing, and water activities. Competitive sports interests were not strong although some members of five families had mild spectator or participation interest. Three fathers had participated actively in school athletics. Subjects seemed to seek personal identifications with their families or with small groups and verbally indicated antipathy to organizations in general.

Sibling relationships. The subjects were divided into two groups based on sibling relationships. Group A included six subjects: two with no siblings, three with sisters only, and one with a brother nine years older with whom he had little contact. Group B included five subjects, all of whom had brothers. In group B, one subject had one brother, two had two brothers, and two had four or more siblings.

In Group A, two subjects were interested in "exercise fitness," and two others had mild spectator interest. Subjects in group A distinctly did not seek physical activity.

Group B had three subjects who vigorously sought physical activity. A fourth was a dedicated spectator and many times an athletic manager, but he felt inferior in his ability to participate. The fifth was interested in activity but did not seek it, although while in college he had worked two years as an instructor in a physical activity program for boys in a nearby prep school. Four subjects in Group B indicated a strong relationship with at least one brother in terms of physical activity.

School life. School life did not appear to be as important as family

life in developing social and activity relationships. Large, public schools were attended by eight subjects; only two subjects were socially active among a large group of students. Only one subject had been or was in a position of student leadership outside of honorary societies and organizations related to small groups of students.

All of the subjects were capable academically, as might be expected considering the college from which the sample was drawn. Seven were majoring in the physical sciences. Although school relationships seemed to be less meaningful, they did support the observation that the subjects were not active in large social groups.

Personal experiences. In an attempt to expand the discussion, one phase of the interview was directed at personal experiences outside of family and school life. Scouting was a childhood activity of eight subjects; nine indicated that their strongest interest in physical activity was in some form of outdoor activity, removed from institutionally controlled facilities and usually non-competitive and solitary or in small groups.

A variety of competing interests, such as music, reading, church work, and some form of handicraft, were mentioned, but none offered a potential explanation of why these subjects were not active in institutionally organized sports. Five subjects did not seem to have any specific, strong leisure interests.

SUMMARY AND CONCLUSIONS

This study was conducted to examine the interest patterns of a group of subjects who demonstrated a high level of physical skill but did not participate in institutionally organized physical activity. It was an effort to determine the importance of physical activity to these subjects and to seek clues as to why they did not enter institutionally organized participation. The exploratory nature of this study makes it essential that the reader view the findings and discussion as speculative and not as a firm demonstration of predetermined hypotheses.

Family stability. Marked family identification and stability were observed which may be a product of the post World War II years and/or variables related to a particular society class structure associated with Pomona College students. However, the evidence indicated that family relationships and interests are areas which require further investigation, particularly if the suggestion is accepted that family stability and identification have a negative relationship with participation in competitive physical activity.

Social groups. The subjects were not active in large social groups which could be taken as a partial answer to the question of why the subjects did not participate in institutionally organized activity. This still leaves the problem of explaining why these subjects developed a preference for smaller social groups.

Physical participation interest. Among the eleven subjects, physical activity appeared to be important to three and of mild interest to five

others. The physical activities in which the subjects did participate were "lonely" and non-competitive forms usually removed from conventional school facilities. Increased physical participation interest seemed to be associated with those subjects who had a strong relationship in terms of physical activity with at least one brother. Of particular interest would be an exploration of competitive sports interest as related to play activities of brothers.

A personal observation by the investigator was that the subjects were reserved and socially non-aggressive but self-confident, preferring small social groups. They were quite insightful in discussing relationships to other individuals and groups and the development of other interest patterns, but only two had given serious thought to physical skill and performance as related to themselves. All of this indicated a purposeful group of subjects who apparently felt no personal "need" for physical activity nor for the related social values.

THE EFFECT OF REST FOLLOWING WARM-UP UPON PHYSICAL PERFORMANCE *

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The problem of the effect of warm-up upon physical performance has been well-publicized and well-studied by physical educators for a number of years. A review of the studies investigating the subject indicated that a substantial contradiction of findings has been evident, and such contradiction has been evident even in cases where similar procedures were employed. A review of related laboratory studies, however, indicated that preliminary exercise would have more consistent effect upon performance than has been demonstrated in the field studies. In seeking possible explanations for the differences in results besides the obvious factors of difference in method and procedures utilized, it became apparent that no consistent effort was made to control the factor of rest between warm-up and performance. It was hypothesized that the lack of controlled rest, or the use of controlled rest that is too far removed from an optimum duration, might distort the effect of the warm-up upon the subsequent performance.

Purpose of the study. It was the purpose of this study to investigate the effect upon subsequent performance of varying durations of rest following various warm-up procedures. Specifically, it was the purpose to determine the relative effects upon subsequent performance in the 100 yard dash of four durations of rest, i. e., 1) two minutes, 2) six minutes, 3) ten minutes, and 4) fourteen minutes, when combined with four warm-up procedures involving 1) no exercise, 2) stretching

* Based upon the investigator's Doctoral Dissertation, University of California, Los Angeles, January, 1960.

exercise, 3) vigorous calisthenics exercise, and 4) sprint running exercise.

Procedures. The subjects for the study were nine male students of the three upper classes at Pomona College, who elected to enroll for Physical Education credit in an activity class entitled "Warm-up Research." The class met for an hour each Tuesday and Thursday at 10 A. M. during the fall semester. Subjects were assigned randomly to one of four sub-groups which were organized in order to present the rest and warm-up variables in alternation so that no two groups began the experiment with the same variables and no two groups utilized the same variables on any given day.

The warm-up exercises utilized were selected as representative samples of the class of exercise involved, i.e., stretching, calisthenics, and sprint running. The criteria for specific choices were that they 1) would service as many areas of the body as practical, especially those particularly involved in the tested performance, 2) could be administered conveniently within a five-minute time period, and 3) could be used practically to accomplish the results generally attributed to "warm-up". The five-minute period for warm-up was selected on the basis of evidence provided by Burke in an earlier study.¹ (Roger K. Burke, "Relationships Between Physical Performance and Warm-up Procedures of Varying Intensity and Duration," Unpublished Doctoral Dissertation, University of Southern California, 1957).

The resting position was sitting rest which took place on a set of steps near the testing area. Subjects were allowed to sit forward with the elbows resting on the knees, or to lean backward with the elbows resting on the next higher step, but were cautioned against frequent changing of position. The resting durations utilized were selected in the attempt to insure that there could be 1) a spacing broad enough to give some evidence of difference between durations, 2) a minimal duration not so short as to make testing impractical, and 3) a range of durations sufficient to cover normal recovery rates.

The first five weeks of class meetings were devoted to training subjects in the procedures to be used and to achieving at least a minimal level of conditioning in individuals. The next eight weeks were devoted to the testing phase of the study. On each of the test days, subjects reported at 10 A. M., participated simultaneously in the warm-up routines assigned to them for a given day, rested together for the duration assigned to them, and then took part in the test performance, individually. Since each subject was tested under all sixteen experimental conditions of the study, there were nine trials for each condition, thirty-six trials for each warm-up procedure and each rest duration, and 144 trials for the total experiment. Using elapsed times in running the dash as the performance scores, differences in performance means related to the overall effect and the interactive effect of both rest and warm-up were examined.

Data analysis. The data were analyzed by a threeway analysis of variance to determine the effect of rest, the effect of warm-up, and the

interactive effect, upon performance. Where significance was indicated, internal analysis of individual conditions was made by the t-test of significance.

Findings. Performance dependent upon speed of movement was not significantly affected by rest per se but was highly affected by warm-up activity and was highly affected by the interaction of the several rest durations with the several warm-up procedures. In the analysis of variance, the value of F obtained for warm-up procedures was 11.98 with $p = .001$; the value of F obtained for the interaction of rest with warm-up was 5.58 with $p = .001$. The value of F obtained for rest alone was only .0053 which is obviously non-significant.

In the examination of performance mean differences between warm-up procedures, it was found that sprint running was significantly more effective than stretching ($t = 3.43$, $p = .01$) and no exercise ($t = 6.61$, $p = .001$), but not significantly different from calisthenics ($t = 1.96$, $p = .07$). Both calisthenics and stretching were significantly more effective than no exercise (for calisthenics $t = 4.65$, $p = .001$; for stretching $t = 3.18$, $p = .01$) but were not significantly different from each other. ($t = 1.47$, $p = .18$).

In a comparison of the sixteen experimental condition means, it was found that significance was achieved in only nine of the 120 ratios possible, which closely approximates the number of significant ratios that might be expected by chance alone. Although caution should be used in interpreting these particular results, it is interesting to note the conditions appearing to be most and least effective when means were placed in rank order. The top three conditions involved, respectively, sprint running with six minutes rest, calisthenics with ten minutes rest, and calisthenics with fourteen minutes rest. The three conditions ranking lowest in order involved, respectively, no exercise with fourteen minutes rest, no exercise with six minutes rest, and no exercise with ten minutes rest.

The import of these findings was 1) that performance results in the 100-yard dash following active warm-up procedures were significantly better than results following no warm-up, 2) that among the warm-up procedures utilized, the sprint running warm-up proved most effective, the vigorous calisthenics next most effective, and the stretching warm-up least effective, 3) that rest following warm-up definitely affected the influence of warm-up upon subsequent performance, and 4) that the determination of an optimum rest duration apparently was dependent upon the warm-up procedure utilized.

Related findings. Although one of the primary reasons advanced for the practice of warming-up before performance has been the belief that it prevents injury in vigorous activity, the findings in this study indicated that injury was not the problem one would have anticipated. In thirty-six trials in the 100-yard dash without preliminary activity, only one injury occurred—a minor strain behind the knee which had no apparent effect upon the subject's performance in later trials. In the 108 other trials with preliminary activity, no injuries occurred. It is

suggested that the lack of injury may have been accounted for by 1) unusually mild temperatures which averaged sixty-five degrees for the eight weeks of the study, 2) the fact that subjects competed only against themselves and their own previous best times, and 3) the fact that subjects started the run from a standing crouch position rather than the normal position in the blocks.

Conclusions. On the basis of the above findings, it was concluded that rest following warm-up definitely affected subsequent performance dependent upon speed of movement; that the combination of warm-up and rest was beneficial to subsequent performance; that particular combinations of warm-up procedures and rest durations were more beneficial to performance than others; and that the practice of utilizing warm-up activity prior to performance was justified, but that careful consideration should be given to the selection of the activity and to the rest duration that follows.

BODY SIZE AND FORM OF AMERICAN-BORN BOYS OF DUTCH ANCESTRY RESIDING IN MICHIGAN

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Ithaca College, New York*

This study pertains focally to the physical growth of North American schoolboys of Dutch ancestry. The boys were drawn from the schools at Holland, Michigan, during the 1957-58 academic year. Three samples were taken, one each at ages 7 years, 11 years, and 15 years.

Major aims of the investigation are:

1. To describe present day American-born schoolboys of Dutch ancestry with respect to 7 measures of body size. These measures are stature, stem length, lower limb length, thorax girth, abdomen girth, leg girth, and body weight.

2. To describe present day American-born schoolboys of Dutch ancestry with respect to 4 measures of body form. Two of these measures represent "slender-to-stocky" continua: leg girth x 100/lower limb length, and thorax girth x 100/stem length. The other 2 depict "regional predominance" continua: thorix girth x 100 abdomen girth, and lower limb length x 100/stem length.

3. To compare age-matched means for stature and body weight from 2 series of North American schoolboys of Dutch ancestry separated in time by a quarter of a century. In attaining this objective, findings from our 1957-1958 data are aligned with findings from data collected 1931-33 in the same schools.

4. To compare the body size and form of different ethnic subgroups of present day North American schoolboys. Intercomparisons are made for American-Dutch boys residing in Michigan (present study), and American-North European boys residing in Oregon.

The original subjects were 246 boys enrolled 1957-58 in schools at Holland, Michigan; 152 attended the public schools and 94 the

christian Reformed parochial schools, 73 represented age 7 years, 77 age 11 years, and 96 age 15 years.

To be accepted, a boy had to meet the following criteria; (1) born in North America, (2) at least 3 grandparents of Dutch lineage, and (3) within 2 months of one of the ages (birth anniversaries) selected for study.

The school superintendents made available lists of all the white boys who satisfied one of the age specifications sometime during the 1957-58 academic year. Each boy on these lists was investigated with respect to birthplace and descent. Subsequently contact with the families of those boys meeting the criteria was made. At that time the purpose of the study was explained and full cooperation was secured from more than 95 per cent of the families.

The boys were measured in a laboratory that had been constructed in the speaker's home. At the time of measurement the subjects wore only gym shorts. All measurements were made by the speaker who was regularly assisted by his wife.

The procedures used in obtaining the different measurements were the same as dictated by international agreement and corresponding to those used in comparative studies.

These seven measures have previously been mentioned and I will not take time to describe them as I am certain they are familiar to you.

Two subjects were involved in each measuring session. A complete set of measurements was taken first on the one subject, then on the other. The same procedure was repeated until each subject had been measured 4 times. When the 4 records for a given dimension were in close agreement, they were averaged. "Close agreement" required that the different records on a boy agree within 0.2 kg. for body weight, 0.2 cm. for leg girth, 0.5 cm. for stature, and 1.0 for the other dimensions. When a record differed from the other 3 by more than the amount allowed, the mean of the homogeneous triad was used.

It would be tedious to attempt enumeration of all the findings contained in Table I. A more useful explication is obtained by listing and illustrating different types of information that can be taken from the table.

1. Average size at each of the ages studied. At age 7 years, the mean obtained for stem length on schoolboys of Dutch descent residing 1957-58 at Holland, Michigan, is 66.8 cm. On the assumption of random sampling, it is estimated at the 1 per cent confidence level that the population mean for this trait lies between 65.9 cm. and 67.7 cm.

2. Comparative average size of different dimensions. For the sample of American-Dutch schoolboys drawn to represent age 11 years, mean abdomen girth is (a) smaller than mean thorax girth by 3.9 cm., or 5.6 per cent, and (b) larger than mean calf girth by 36.4 cm., or 122.5 per cent.

3. Change in average size during quadrennial and octennial intervals. Reference to the central tendency statistics for body weight shows that there are increases of (a) 14.4 kg, or 58.5 per cent, between ages 7

and 11 years, (b) 22.2 kg., or 56.9 per cent, between ages 11 and 15 years, and (c) 36.6 kg., or 148.8 per cent, between ages 7 and 15 years.

4. Variability at each of the ages studied. In stature, 30 per cent of the boys age 15 years are shorter than 168.0 cm. and another 30 per cent taller than 175.6 cm. The percentiles for body weight at this age indicate that one-tenth of the boys are lighter than 49.6 kg. and one-tenth heavier than 75.2 kg.

5. Comparative variability of different traits. At all 3 ages, the standard deviation for abdomen girth is larger than that for thorax girth. Comparison by use of the coefficient of variation (standard deviation $\times$ 100/mean) indicate that variability is less than 5.0 per cent for stature and more than 15.0 per cent for body weight.

6. Overlap of trait distributions for different ages. The 3 distributions for lower limb length show the least overlap. Taking as a reference value the maximum at age 7 years (62.0 cm.), fewer than 10 per cent of the boys age 11 years have lower limbs that are shorter than this, whereas none of the boys age 15 years have lower limbs shorter than 73.0 cm. Greatest overlap occurs for abdomen girth; the 90th percentile at age 7 years, 20th percentile at age 11 years, and the minimum value at age 15 years each approximate 62.0 cm.

To this point, the original data for body size have been described by means of central tendency and variability statistics. They were further analyzed by means of correlations statistics at 11 years of age. One or two comments I think will suffice; leg girth correlated highest with body weight ($r .94$) while lower limb length has the lowest correlation ($r .46$); the association between the two trunk girths ($r .90$) is considerably higher than that between the 2 components of stature ($r .53$).

A quarter of a century earlier than the time the data for the present study were gathered, Steggerda and Densen amassed data for stature and body weight of boys of Dutch descent enrolled "in the schools of Holland, Michigan." The 2 collections represent the temporal periods 1931-33 and 1957-58.

Steggerda and Densen state that their 1931-33 sample consists of boys "whose ancestors came from the Netherlands"; 60 per cent of the boys in our 1957-58 sample had 4 grandparents of Dutch ancestry and 40 per cent had 3 grandparents of Dutch ancestry.

For stature at two ages, and for body weight at all three ages, differences between means for the 2 secular periods are statistically significant at the 1 per cent level of confidence.

The obtained means for body weight show present day American-Dutch boys to be heavier than American-Dutch boys a generation ago by 1.7 kg. at age 7 years, 5.2 kg. at age 11 years and 10.7 kg. at age 15 years. They are taller by 2.1 cm. at 11 years and 3.0 cm. at 15 years.

Comparison of contemporary Michigan boys of Dutch descent can be made with Oregon boys of northwest European descent measured in 1950 at ages 7 and 15 years. Similarity exists for abdomen girth, leg girth, and body weight. At neither age is there a statistically significant difference in any of these traits. At both ages, the means for the

Michigan-Dutch sample is larger in thorax girth. The differences being statistically significant at the 1 per cent level of confidence. Also at age 15, Michigan-Dutch sample means are larger for stature and lower limb length. Significance is at the 5 and 1 per cent level of confidence.

As indicated earlier, data for 4 measures of body form were derived. Two of these measures quantify the stockiness, or slenderness, of the body stem and lower limbs. The other 2 quantify the predominance of upper trunk to lower trunk, and lower limbs to body stem.

Findings from Table II on central tendency are:

1. Over the period from 7 years to 15 years, the body stem becomes stockier with age. Thorax girth expressed in percentage of stem length rises from 90.4 at 7 years, through 91.3 at 11 years, to 94.7 at 15 years. On the assumption of random sampling, the population means at the 2 terminal ages may be regarded with high confidence as dependably different (t 5.2).

2. During childhood and early adolescence the lower limbs become more slender with age. Calf girth in percentage of lower limb length shows a decline from 45.0 at age 7 years to 41.8 at age 15 years. This difference of 3.2 in mean lower limb index is statistically significant (t 7.2).

3. Circumference of the upper trunk is less predominant with respect to circumference of the lower trunk at ages 7 years and 10 years than at age 15 years. Thorax girth approximates 106 per cent of abdomen girth at the 2 childhood ages, and 111 per cent of abdomen girth at age 15 years. There is substantial statistical basis (t 6.3) for inferring that during early adolescence the thoracic region of the trunk enlarges in perimeter relative to the abdominal region.

4. Marked increase with age occurs in predominance of the lower limb segment of stature with respect to the body stem segment. Ascent of the skelic index mean values is from approximately 83 per cent at 7 years, through 91 per cent at 11 years, to 95 per cent at 15 years. The difference between any two of these means is significant statistically at the 1 per cent confidence level.

Selected findings of variability from Table II are:

1. Forty per cent of the stem indices cluster between 87.7 and 91.8 at age 7 years, 88.2 and 92.0 at age 11 years, 91.2 and 96.2 at age 15 years. For 10 per cent of the boys age 11 years, thorax girth is less than 85.6 per cent of stem length. Another 10 per cent of the boys this age have indices of stem stockiness above 95.5.

2. The stem index is more variable than the skelic index. This is seen most readily at ages 11 years and 15 years; at each of these ages, note the similarity of the index means and the difference between the standard deviations.

3. For no less than 90 per cent of the boys at all 3 ages, thorax girth equals or exceeds abdomen girth. Trunk indices above 108 per cent are found for 30 per cent of the boys age 7 years, and 70 per cent of those age 15 years. Ten per cent of the indices representing 7 years are above 111, and 10 per cent of those representing 15 years above 117.

4. At age 7 years, the minimum value of the distribution for the lower limb index approximates 40 per cent. At age 15 years, 30 per cent of the boys have calf circumferences that are less than 40 per cent of lower limb length.

Comparative findings

1. In relation to present day American-North European school boys, present day American-Dutch school boys have higher stem and trunk indices. These higher index means imply a larger thorax girth relative to both stem length and abdomen girth. Each difference is statistically significant at the 1 per cent confidence level.

2. With respect to lower limb index, North American school boys of Dutch lineage do not differ significantly from North American school boys of diversified northwest European Lineage.

3. The American-Dutch and American-North European comparisons for mean skeletal index do not furnish clean-cut results. At age 7 years, the difference is not significant statistically; at age 15 years, the difference is significant at the 5 per cent level.

Regarding the trend of index means, results from this and various investigations show:

1. The body stem becomes more slender with age in early childhood and more stocky with age in later childhood and early adolescence.

2. Throughout childhood and adolescence, the lower limbs become continuously less stocky with age.

3. The mean trend for thorax girth in percentage of abdomen girth shows an overall rise from early childhood into adolescence, and a subsequent decline.

4. The infraischial component of stature increases in relation to the stem component throughout the period from infancy to early adolescence, then decreases slightly during late adolescence.

To summarize briefly, North American schoolboys of Dutch lineage have been studied with respect to 7 measures of body size and 4 measures of body form. The boys were drawn from the schools of Holland, Michigan, during the 1957-58 academic years.

Analysis has been made to obtain both indigenous and comparative findings.

Present day American-Dutch school boys are taller at 2 ages, and heavier at all 3 ages than American-Dutch school boys a quarter of a century ago. Compared with American-North European school boys, they have higher stem and trunk indices.

Intercollegiate Athletics

PROBLEMS IN THE ADMINISTRATION OF A DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS AS A SINGLE ADMINISTRATIVE UNIT

Part I - Facilities and Equipment

J. EDWARD WEAVER
The Ohio State University

It seems that the main problem facing colleges and universities throughout the United States is the preparation for a tremendous increase in the student population. We have to prepare for this tidal wave of students. It is our job to provide adequate facilities and equipment for these students so that they can participate in physical education, intramurals, and athletics.

1. Responsibility:

- (a) The Director of Athletics must gather information from the Intramural Director, heads of departments, and the coaches as to the necessary equipment and facilities needed. He should use democratic procedure.
- (b) He must transmit this material to the University Central Planning Group.
- (c) At Ohio State University there is a long-range planning committee to determine needs.
- (d) Optimal use of present equipment and facilities is necessary.
- (e) The Director of Athletics has the responsibility of deciding priority uses of facilities and equipment.
- (f) It is necessary for the Director of Athletics to coordinate and correlate the use of facilities with the whole University family.
- (g) A decision has to be made as to centralization or de-centralization of facilities. Housing of students has an effect on where recreation facilities should go as well as the expansion of classroom buildings.
- (h) There should be a free exchange of facilities among the various departments of Athletics, Physical Education, and Intramurals.

2. Issue of Athletic Equipment:

- (a) It is essential that there be proper records.
- (b) The attitude of the head coach is important in connection with expendable and non-expendable equipment.

3. Care of Equipment:

- (a) At Ohio State, care of equipment is done by special people -- white articles are taken care of on campus, others off campus (such as reconditioning of shoes, cleaning of suits, and repair of player equipment).

4. Purchase of Equipment:

- (a) It is important to know materials, manufacturers, and legality of design.
- (b) Money can be saved by buying out of season, in quantities, by standardizing uniforms, and by keeping balance in all sports.

Part II - Public Relations

CARROLL C. WIDDOES
Ohio University

Public relations are important because intercollegiate athletics is involved with having its program constantly before the public.

We are concerned with public relations as they affect the following groups:

- 1. Students
- 2. Faculty
- 3. Alumni
- 4. General Public

1. Students:

- (a) Importance of good relations with students was stressed.
- (b) Students should be informed as to national, conference and school policies.
- (c) The athletic program is primarily for the student, and all policies should be determined in his best interest.
- (d) Cooperation of the student body is necessary in order to have a good athletic program.

2. Faculty:

- (a) Cooperation of faculty is important to the athletic program.
- (b) Athletic staff must participate in faculty affairs enthusiastically.
- (c) Faculty members should be well informed in regard to policies.

3. Alumni:

- (a) Importance of relationship with alumni was stressed.
- (b) All media should be used to keep in close touch.
- (c) Alumni cooperation should be encouraged - alumni control should be avoided.

4. General Public:

- (a) Public relations are so important because the public supports the program.
- (b) Relations affected by everyday contacts — better public relations will result from courteous treatment, proper handling of crowds and fair treatment in the distribution of tickets.
- (c) Presenting a positive approach should be encouraged. Inter-collegiate sports should be played up by playing up the good rather than dwelling on errors.

Places Where There Are Special Problems:

1. Relationship between collegiate and professional sports — conflict of aims and policies.
 - (a) Facilities
 - (b) Personnel
2. Relationship with High Schools.
 - (a) Contacts with prospects
 - (b) Contacts with secondary school personnel

Part III - Financial Control and Procedures

CARL ERICKSON
Kent State University

The responsibility of financing the college athletic program rests primarily with the institution if we are to operate on the premise that athletics are a part of the educational picture. The students, alumni, and public support the program, but it is primarily voluntary. If the program is supported through gate receipts, the dangers of public demand for entertainment can be controlled by having certainty of purpose and having rules, regulations, and objectives set up which clearly indicate a "hands-off" policy concerning the administration of the athletic program.

At Kent State University, we have a Boosters' Club with donations from \$50 up to \$2,000 which are used as grant-in-aid to athletes. This year, the IBAKA (which stands for "I Back a Kent Athlete") Club was inaugurated. The contribution is \$10 per member, and a goal of 2,000 members has been set; at present we have 200 members.

I do not know whether physical education costs should be separated from intercollegiate costs in the institutional budget. At Kent it is separate with a certain amount of overlap.

When coaches teach in the physical education program, their salaries should be pro-rated. Salaries should be based on rank of coaches and to the extent that they are qualified as faculty. We have a minimum requirement of the faculty member having formal training of a Master's degree in the field of health and physical education. The

salary schedule should be the same as for other faculty members so that when the individual is no longer coaching he takes his normal place on the salary schedule.

As to whether scholarships and grants-in-aid should be charged to the athletic budget, I feel that scholarships are based on the grades and point average of the student, whereas a grant-in-aid is something less than this. The scholarship should come out of the institution's budget, whereas the grant-in-aid would be processed through the legal machinery set up for this purpose.

At Kent State University, the athletic department uses institutional service departments such as purchasing, publicity, buildings and grounds as much as possible. These services are charged off to maintenance, etc.

It is felt that salary scales and teaching loads should be the same as for other departments.

Part IV - General Athletic Administration

JOHN B. DAUGHERTY

Indiana University

At Indiana University we have our own school of Health, Physical Education and Athletics. It is constructed on the same basis as the other colleges. It is autonomous, has the right to grant degrees — from the Bachelor to the Doctor — and we have our own Dean.

Within this school we have a separate Department of Athletics. The coaches teach physical education courses, and cooperation is desired and encouraged.

As I see it, three major problems face this type of general administration:

1. The administrative control. In discussing these problems, it is necessary for proper administrative control to have interlocking committees with the Director of Athletics and the Chairman of Physical Education working together. The Athletic Director should feel kindly toward the Physical Education Department.

2. The sharing of facilities. All facilities should be shared in an equitable manner. The request for additional grounds and buildings can be best justified by stating that these facilities are for the whole program — athletics, physical education, intramurals, and recreation. Our president used this as a basis to request 160 additional acres; the request was granted on the basis of this approach.

3. The dual responsibility of coaches. In dealing with the dual responsibility of coaches, it seems to me that their greatest allegiance should be to teaching. However, it is extremely important to have a definite assignment of duties, centralization of authority, and a definite delegation of authority and responsibility. The design of the curriculum

followed by the coaches who are teaching should be worked out with the Chairman of the Physical Education Department.

Part V - Staff Relationships

MITCHELL J. GARY

Western Michigan University

We must stress the importance of faculty relationships with the other members of the University faculty. It is important that we have joint faculty committees to accomplish the necessary staff relationships. At Western Michigan, the president sends each new staff member a letter delineating his duties and whether he is hired primarily as a coach or a teacher. This helps tremendously later if a tight situation develops.

The orientation of new staff members is important, not only to acquaint him with the machinery, procedures, and routines but also to inform him about standards, background, and traditions.

It is felt that athletic coaches should be assigned to teaching of physical education classes. At Western Michigan there are 19 members on the staff — all coaches teach and all teachers coach.

It is felt that staff personnel assignments be made on the basis of special training and experience in a limited number of areas rather than attempt to have them work in all phases of the program. This does not preclude working together on committees within the department or in the institution as a whole.

Teacher Education

GENERAL EDUCATION IN THE PROFESSIONAL PREPARATION OF THE PHYSICAL EDUCATION TEACHER

FLOYD D. REES

Central Missouri State College

The Importance of General Education in Professional Programs of Physical Education

It is imperative that our professional programs of teacher education give increased attention to general education. Professional programs in physical education must concentrate on providing experiences that will motivate greater understanding of the social, political, moral, and spiritual issues of the day.

Today, more than ever before, the importance of greater study into the problems of general education is being recognized. Monroe sums up this significance by stating: "It is clear from a study of contemporary objectives of teacher education that general education is held to be of high significance. Some writers have indicated that it is the most important aspect of the teacher's education and that it presents the most crucial problem in formulating a curriculum."¹

It must always be remembered that the physical education teacher is not just an instructor in physical education activities and sports. He is far more than this. First, he is a citizen in a democratic society, secondly, he is an educator and thirdly, he is a physical educator. He must be able to supply intelligent leadership in both school and community on diverse types of problems. Consequently, he must have a sound general education, one that will prepare him for mature and responsible leadership.

Therefore, to better understand how the vital aspect of general education is being treated in our undergraduate professional programs of teacher education, as well as to show how general education may be improved in our professional programs, a questionnaire was constructed.

Questionnaires were sent to the chairmen of men's physical education departments in one-hundred seventy-five accredited colleges and universities of various sizes, in forty-eight states. The response was most gratifying because one-hundred seven questionnaires or 61.14 per cent were answered. Institutions in forty-five states responded providing

¹Walter S. Monroe, The Encyclopedia of Educational Research, pp. 1398-99.

a wide range of coverage. However, institutions in Georgia, New Hampshire, and Vermont did not respond.

Significant Findings and Trends Relating to this Study

(1) 80.92 per cent of the department chairmen indicated that they have formulated, or prefer, a philosophy which closely reflects that of the general education movement. This is a philosophy characterized by non-specialized, non-technical education oriented toward preparing the student for intelligent living and competent citizenship.

A pattern of philosophy is basic for instituting changes of and kind; therefore, the high percentage of department chairmen agreeing with the philosophy of the general education movement becomes very significant. It may be assumed from this evidence that the general education movement may gain an impetus during the next few decades.

(2) A very high percentage, 90.65 per cent of the department heads agree that general education should be considered of equal importance with professional and specialized education. It may be assumed from this evidence that many of the colleges and universities may re-evaluate their programs, placing general education on a par with professional education. A re-evaluation of this type could considerably upgrade general education programs throughout the United States.

(3) This study disclosed that 69.16 per cent of the department chairmen indicated that, at their institutions, general education is considered to be a faculty-wide responsibility of all the divisions and all work toward its objectives.

This practice may indicate that, at many institutions in the United States, all of the instructional divisions are cooperating in the propagation of general education objectives and that the responsibility for promulgating these objectives has not fallen to just one area.

(4) A growing interest in the four year plan for general education can be seen because 46.73 per cent of the department heads related that undergraduate physical education majors take general education course work in all four years, but in diminishing amounts.

With movement away from the concentrated two-year block of time devoted to general education, the student will not have to delay his vocational course work until his third year in college. He, also, will be afforded greater opportunity to relate his general education work to his vocational course experiences.

(5) The development of the integrated course, which cuts across subject matter lines, has tended to cause the interdepartmental type of administrative organization for general education to grow in popularity. This growth is shown by 42.99 per cent of the department chairmen who indicated that their administrative structure for general education is organized on an interdepartmental basis where departments cooperate but work independently.

With the growth in popularity of this type of administrative structure,

the integrated course has the proper academic environment to germinate and blossom forth as an important type of course organization in the area of general education.

(6) 67.29 per cent of the department heads agreed that the doctor of philosophy program, as it is organized in most graduate schools today, is good for preparing research personnel, but not good for providing the broad divisional type of preparation that teachers of general education need.

The general education teacher must understand the needs of students as well as the social issues and problems of the day. He needs a broad divisional type of background that will enable him to see the possible applications of his field to the major problems of civilization.

(7) It was also found that 49.53 per cent of the department heads rated the library facilities at their institutions as "good" for carrying out an adequate program of general education.

The library is a vital intellectual force in any general education program. The development of the integrated type course makes necessary increased use of library facilities and services. A wide variety of library materials are valuable aids to the instructional goals of the integrated course.

(8) 90.65 per cent of the department heads reported English literature as a course in the general education program which their major students experience.

(9) Both American history and sociology were indicated by 75.70 per cent of the department chairmen as course areas in the general education social science program in which physical education majors had experience.

(10) 75.70 per cent of the department chairmen stated that physiology was a course in the science program which major students in physical education experience. Closely related with this finding is the next fact.

(11) 82.24 per cent of the department heads reported that general education courses, in the area of science, do count as science foundation courses for professional course work in physical education.

(12) A fairly high percentage, 61.68 per cent, of the chairmen related that general education courses in science are on a required basis for their major students in physical education.

With a strong emphasis toward a scientific background, it is not surprising to find department chairmen revealing that their major students experience more course work in the science program in general education than in the humanities or social science areas.

(13) The literature, in the area of general education, has continued, over the past two decades, to show a great amount of interest in the integrated type of course organization.

Interest in the development of such courses can be seen by the fact that 78.50 per cent of the department heads agreed that the objectives of general education necessitate the development of courses which draw their materials from wider divisions of knowledge and which are intimately related to the psychological process which people use in dealing with problems of everyday life.

(14) In conjunction with the above idea, 73.83 per cent of the department heads agreed that the single introductory course, taught by a subject matter specialist and oriented toward the student who plans to specialize in the subject area, is not adequate for meeting the general education objectives of physical education majors.

(15) Stressing the interest in the newer type of integrated course organization for general education, 57.94 per cent of the department heads related they most favored this type of organization.

From the above data, it may be assumed that course organization, in general education, will continue to move toward the integrated course with more institutions adopting this type of organization.

(16) It was determined that, at 73.83 per cent of the participating institutions, faculty members in the department of physical education are responsible for counseling physical education majors in regard to general education courses. However, 49.53 per cent indicated that general education courses are required of every student without aid of prior guidance. It can be concluded that at almost one half of the participating institutions, there is no diagnostic testing and counseling program working in relation with the general education program.

If students are going to have the opportunity to be helped by means of the general education area, they must have a sound guidance and counseling program that will aid them in selecting experiences which will contribute to their interests, needs, and problems.

(17) Department heads were asked to generally rate the effectiveness of the extra-class program at their institutions as fully, moderately, or not at all meeting significant general education needs of their major students. It was found that 77.75 per cent indicated that they believed the extra-class program at their institutions was "moderately" meeting these needs.

(18) It is gratifying to note that 74.7 per cent of the department heads stated Negro students and members of other minority groups are not denied opportunities to participate in extra-class activities.

Continual evaluation and improvement of all extra-class programs must be made in the light of not only the objectives of the general education program, but also the total educational program of the college or university.

Recommendations for the Improvement or Construction of General Education Programs in Men's Undergraduate Professional Curricula in Physical Education

Based upon the authoritative literature used in this study and the findings reported by department chairmen in men's physical education, the following recommendations are made:

General

(1) It is recommended that all department chairmen and other

faculty members responsible for the professional preparation of physical education teachers become thoroughly acquainted, not only with the general education curriculum requirements of their major students but also with their institution's program of general education. Many department chairmen, in answering the questionnaires, indicated that they were not thoroughly aware of the general education requirements of their major students or their institution's general education program. It is, also, recommended that all faculty members responsible for the professional preparation of physical education teachers acquaint themselves with the significant problems surrounding the area of general education, perhaps devoting several staff meetings each year to this important aspect of teacher education.

Philisophy

(2) The functional philosophy of the general education movement, characterized by non-specialized, non-technical education oriented toward preparing the student for effective living, should be used as a basis for program construction or improvement in general education.

(3) General education should not be considered professional by nature and, therefore, should be the same for all students no matter what their professional plans are. Physical education major students as well as students in other areas should have similar opportunities and experiences in the area of general education.

(4) General education should be considered of equal importance with professional and specialized education in men's undergraduate professional programs of teacher education.

Objectives

(5) General education should be considered a faculty wide responsibility of all the divisions preparing physical education teachers and all college divisions should work toward its objectives.

(6) A written set of objectives for general education should be formulated on an institution wide basis to fit the particular needs of its students. In institutions where this is not possible at the present time, each department of physical education should formulate a written set of objectives for their students.

Amount of General Education

(7) Of the total semester or quarter hours required for the graduation of physical education major students, from one-fourth to one-half of these credit hours should be devoted to the area of general education.

(8) General education course work should be taken in all four years of college work but in diminishing amount. The first and second years should contain the greatest percentage of general education course work with lesser amounts during the last two years. Distributing general education work over a four-year period will enable the physical education student to better relate his general education course work to his professional and subject matter experience. It will also enable the

student to receive a more comprehensive coverage of the general education area by not having to pack all of his general education courses into the first or second years of his college work.

Administrative Structure

(9) The administrative structure for general education should be organized on some type of interdepartmental or divisional structure. The interdepartmental type of organization where departments cooperate, or the divisional type of structure where subject matter fields are brought together, enables a higher degree of correlation to take place between subject areas. It also motivates the development of the broad integrated course which cuts across subject matter lines.

(10) Administrative responsibility for general education should be granted to either an interdepartmental committee or a college-wide standing committee, which will coordinate general education courses offered in the respective departments of a college. Since general education should be the responsibility of all divisions within a college, representatives from each division should be given the responsibility for coordinating general education work.

Faculty Preparation

(11) Faculty persons teaching within the general education program should have a broad divisional type of graduate school preparation as a qualification for teaching. Graduate schools throughout the United States must take the necessary steps to provide this type of education. The narrow type of preparation, oriented toward preparing research personnel is not adequate for preparing a teacher for the general education program.

The Library

(12) The library facilities for carrying out a program of general education should be excellent. The library is increasingly carrying a heavier responsibility in the general education area through the materials and services it is called upon to contribute.

Humanities, Social Science, and Science

(13) Physical education major students should experience general education course work in the humanities, social science, and science areas but no arbitrary number or kind of courses can be recommended for all students. Each individual should have the opportunity to elect the number or kind of courses that will meet his particular needs. One student's background and proficiency will be different from another's, and for this reason it will be necessary for students to experience various amounts of course work in these areas.

(14) More integrated type courses which cut across subject matter lines should be developed within the humanities, social science, and science programs in general education. Courses that offer a broad

orientation to a subject area, bringing together wide divisions of knowledge in a functional manner are mandatory.

(15) General education courses in the science area should count along with other types of science courses, as science foundation courses for professional course work in physical education.

(16) Laboratory course work for general education courses in science should fit the aim and objectives of each course. If a general education science course is mainly concerned with teaching scientific methodology then students should have the opportunity to handle laboratory equipment and to perform experiments.

If a course is mainly concerned with the history of modern science, the students could profit from reading about past researchers and the monumental scientific experiments of the past.

As new types of general education courses are developed in the area of science, time and effort must also be given to the development of new types of laboratory work which will be in keeping with the aim and objectives of each new course.

Student Evaluation

(17) New types of evaluative devices and techniques should be applied and developed for measuring student progress in the general education program. New kinds of preference scales, inventories, and rating sheets should be developed. These devices should be used in relation to the particular aim and objectives of each general education course.

(18) Examinations for determining student progress in the general education area should be in keeping with each particular educational institution's policy for giving examinations in the general education program.

Course Organization

(19) The objectives of general education necessitate the development of new courses of the integrated variety for all areas of the general education program. These courses should draw their material from wider divisions of knowledge not closely related to the internal logic of a subject and they should be correlated to the psychological process which students use in dealing with their everyday problems. Courses should be oriented toward the functional uses of knowledge, helping students to better understand the problems of their own society as well as their world in general.

(20) The traditional introductory type of course taught by a subject matter specialist and oriented toward the student who plans to specialize in the subject area is not adequate for meeting the general education needs of students. This traditional, specialized, approach is useful for preparing future specialists within a subject area but it is not recommended for attaining the objectives of general education.

Guidance Implications

(21) Designated general education counselors, especially prepared

for counseling in the general education area, along with a professor from the student's major department, should be responsible for counseling the student about general education course work. Both the professor and counseling specialist should act as a team in helping the student plan course work throughout his undergraduate experience that will meet his individual general education needs, interests, and problems.

(22) General education course work should be planned by students only after a series of diagnostic tests are taken to point out the student's interests, needs, and aptitudes. This type of testing followed by careful planning will individualize the general education program for each student and more significantly aid the general education area in meeting the individual problems of its students.

Extra-curriculum

(23) The extra-class program should be considered a part of the general education program and each college should continually improve this aspect of its total program. Also, extra-class activities should be continually added to the program on both a college-wide and community-wide basis.

(24) Negro students and members of other minority groups must not be denied an opportunity to participate in extra-class activities along with white students. The moral and religious foundations of a democratic society forbids any racial discrimination within the extra-class or total educational programs of our colleges. The extra-class program must at all times be based upon the highest moral and ethical standards if the objectives of general education are to be attained.

The formulation of a strong, well organized general education program is a vital challenge in a world growing increasingly complex. The responsibility is ours. We must rise to the occasion.

THE ROLE OF THE JUNIOR COLLEGE IN THE PREPARATION OF PHYSICAL EDUCATION TEACHERS

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One of the most significant phenomena in higher education is the development of junior colleges in the United States. The first junior college, as reported by Sack,¹ was a private venture started on June 14, 1858 and was named the Missionary Institute of the Evangelical Lutheran Church. The first public junior college, to survive and flourish to the present time, was opened in Joliet, Illinois in 1902. As early as 1900 a public junior college was opened in Goshen, Indiana but was later discontinued.

¹Sack, Paul, "The First Junior College," Junior College Journal, 30:13; September 1959.

A spot check of statistical data² will illustrate this development:

School Year	Number of Colleges	Enrollment
1900-1901	8	100
1921-1922	207	16,031
1931-1932	493	96,555
1941-1942	624	314,349
1951-1952	593	572,193
1957-1958	667	892,642

During the last 12 years the rising tide of students in junior colleges has been most pronounced. No doubt, Federal interest gave considerable impetus to this movement. The Presidents' Commission on Higher Education in 1947 proposed that education through the 14th grade should be made available the same way provision is made for high school education. This Commission further proposed the development of community colleges in order that higher education would be available to more students. The community college was given further support by the President's Committee on Education Beyond the High School. Recently, President Eisenhower indicated to the National Committee for the 1960 White House Conference on Children and Youth that one or two years should be added to the high school to meet the demands of a technological age.

The junior college is here to stay and growth will continue to meet the needs and demands for more education. In 1957-58, of the 667 junior colleges 58.6 percent were public junior colleges enrolling 88.8 percent of all students in junior colleges. A projection of junior college enrollment based upon the ratio of 1957-58 freshman, sophomore and special students to the number of persons in the 18-21 age range indicates a 1970 enrollment of 923,000 students. These estimates are conservative for the percentage of students in higher education is increasing. California enrolls more than 50 percent of all junior college students in the United States. In the 63 public junior colleges in California there are enrolled 101,700 full-time students or 41 percent of all the states' collegians. By 1970 this enrollment is predicted to approximate 222,300 students.

The problem of coordination in professional preparation of physical education teachers is intensified further when it is noted that new state colleges and branches of the university are being created. The 14 state colleges in California enroll 50,400 full-time students which is 20 percent of the college population in California at the present time. In ten years the state college enrollment will approximate 139,400 students or 27 percent of the state total. The University of California now enrolls approximately 45,100 full-time students and is planning new campuses for an enrollment of over 90,000 by 1970. Other states are experiencing

²Gleazer, Edmund J., "Analysis of Junior College Growth," Junior College Journal, 29:356, February 1959.

similar developments. It becomes a real problem to coordinate and articulate the functions of these levels of higher education in the preparation of physical education teachers.

The functions of professional preparation are directed toward the development of the enlightened person, the cultured citizen and the competent teacher or leader. It is agreed, generally, that if the student has made a vocational choice by the time he enters college that some specialized professional education should be offered during the first two years. It is difficult, indeed, to insist that the student delay the development of his professional interest until his junior year in college. For good motivation, some work should be directed to developing professional competence while a large proportion of work should be devoted to general education during the first two years.

Junior colleges recognize this concept by indicating their purposes: (1) preparation for advanced study; (2) vocational education of a terminal nature; (3) general education; and (4) adult education. At the present time approximately one of every four college students beginning work in a degree program is enrolling in a junior college. In California, approximately 60 percent of lower division physical education major students enroll in junior colleges. These students usually attend two years at the junior college level and then transfer to a state college or university. Other students may attend a state college and then transfer to a university. The most critical problem, therefore, when thinking of the welfare of the student, is the development of coordination and articulation in professional preparation among the different levels of higher education. It is logical to assume that the professional preparation program should be continuous and progressive regardless of the college or university in which it is offered and students should be able to transfer from one level to another without undue delay because of make-up work. Likewise, students should not find duplication and repetition of experiences when transferring to a higher level of professional preparation.

To effectively deal with the problem of the transfer student, state or even regional committees should be formed. These committees should have representatives from the junior colleges, state colleges, the universities, the public schools, the certification bodies and others concerned with teacher education. All aspects of professional preparation should be considered including recruitment, selective admission and elimination, counseling and guidance, and curriculum. It is believed that the bottleneck to the smooth flow of transfer students from two-year to four-year institutions could be broken as the principle of equivalents is put into practice. A design for lower division preparation would be created which would serve all colleges and universities in the preparation of teachers. It is assumed that the quality of teaching in the junior colleges should be comparable to the quality of teaching in four-year colleges and universities.

A large share of the lower division program for preparing physical educators should be devoted to general education. The rest of the time

should be used, to orient the student to the whole field of education and to his area of specialization, to provide an introduction course in his professional field, and to strengthen his weaknesses in basic skills needed to teach physical education activities. In the orientation program a broad base for teaching would be established. In this program the prospective physical educator would be tested to determine his strengths and weaknesses in all aspects of professional growth, particularly in the quality of his skills in physical education activities. Throughout the orientation process counseling and guidance would be used to provide the student direction in the selection of learning experiences. He would learn about all aspects of the teaching profession and of his responsibilities in relation to being a professional person. He would be learning basic physical skills so that he would qualify for method courses in the upper division program. Help would be given the student to improve his speech, reading, leadership, dress and social competence.

Following the orientation experiences the student should be enrolled in an introduction course in physical education. This course would introduce the student to his professional field and to the relationships of his professional field to other aspects of education. The student would be taught the requirements for certification in physical education, the role of physical education in solving present day problems, the literature in the field of physical education, professional organizations, and the contributions of physical education to children, youth and adults. In this course self-evaluation would assist the student to study his own competencies and aspirations against the demands of the profession. This would lead him to develop an overall plan for professional preparation.

Some actual contact with classrooms and agencies in the community would be provided in both the orientation and introduction programs. Such early "laboratory type" experiences would enhance all aspects of the teacher education program on both the lower, upper and graduate levels. The emphasis on skill testing and skill development on the lower division level should not be underestimated for physical education is a doing field. For the prospective physical educator it is assumed that the personal health course is included in the lower division program of general education.

Invaluable contributions have been made to teacher education in California through articulation and coordination committees. Through the cooperation of the California State Department of Education and the California Association for Health, Physical Education and Recreation various liaison workshops and committees were formed for the professional preparation of physical educators. Their contributions include the following:

1. "Desirable Competencies Needed by Lower Division Women Physical Education Major Students in California."
2. "Minimum Activities Competencies Needed by Men Physical Education Students in California."
3. "Course Content in the Lower Division Course Area of Introduction to Physical Education."

4. "A Statement of Basic Definitions and Principles for Professional Preparation and Leadership in Health Education, Physical Education and Recreation in California."
5. "Report of the Junior College Committee on Facilities for Physical Education and Athletics."
6. "Course Content in Lower Division Recreation Courses."
7. "Course Content in the Basic Health Education Course for Lower Division Students."

These statements are still being refined but serve as a guide for lower division preparation of physical education major students. Another invaluable tool developed in California was a suitable physical education competency cumulative record form for transfer students and record purposes. Every good teacher education program starts with a design and part of this design is the lower division program regardless of its location in a junior college, state college or university. The execution of the design is the key challenge. All aspects of professional preparation are improved at every level when the design is improved. By making more clear the role of the junior college the rest of the professional education program will be improved. All will agree that a pre-eminent profession must make a relentless pursuit of excellence in the preparation of its leaders.

DEVELOPMENTS IN NATIONAL STANDARDS AND GUIDE FOR THE EVALUATION AND ACCREDITATION OF PROFESSIONAL PREPARATION IN HEALTH EDUCATION, PHYSICAL EDUCATION AND RECREATION EDUCATION

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The accreditation of institutions engaged in teacher education generally and the professional preparation of physical education teachers specifically has long been of concern to members of the College Physical Education Association. Two respected members of this Association, the late William L. Hughes and William F. Meredith were staunch advocates of accreditation. They devoted considerable time and energy to the movement. As one of their many friends and colleagues, I have taken this brief opportunity to pay a small measure of tribute to their service in this area.

Accreditation is defined as the art or process of certifying that an educational institution maintains or surpasses a set of criteria or requirements that must be met in order to secure approval by the evaluating agency. Recognition accorded institutions which meet such criteria

usually is done through their inclusion in a list of institutions similarly approved.¹

Although accrediting agencies have increased since the turn of the century to more than one hundred, accreditation of institutions in the area of teacher education has been slow to gain approval. It is understandable, therefore, that any movement to obtain accreditation of institutions engaged in the professional preparation of those engaged in one or more of the areas of health education, physical education and recreation should encounter some obstacles. Nevertheless, considerable progress has been made since 1948 in overcoming them. It is the purpose of this paper to present some of the most recent developments.

About ten years ago the American Association of Colleges for Teacher Education included accreditation among its functions. Subsequently, this Association ceased its accreditation function due to the organization, action and influence of the National Commission on Accrediting. This organization, representing seven major nonaccrediting college associations, was established to coordinate and review accrediting agencies. One of the twenty-one professional accrediting associations approved by the Commission is the National Council for Accreditation of Teacher Education (organized in 1952) which, for brevity, will be referred to frequently as the Council throughout this paper. It assumed the accrediting activities of the American Association of Colleges for Teacher Education on July 1, 1954 but was not approved by the National Commission on Accrediting until about three years ago.

Our professional organizations and committees have been developing cooperative relationships with the Council. Before stating their nature it is appropriate to discuss its purposes, policies, the standards it uses to judge the quality of teacher education programs, and the procedures it follows in the discharge of its functions. This and other information may be found in The National Council for Accreditation of Teacher Education - A Statement of Purposes, Policies, and Procedures. The address of the Council is Mills Building, Seventeenth Street and Pennsylvania Avenue, Washington 6, D. C.

The Council "is an autonomous, voluntary accrediting body devoted exclusively to the evaluation and accreditation of teacher education programs." As of June 1, 1957 the Council consisted of 19 members including representation from teacher preparing institutions, state departments of education (the certifying agencies), the National School Boards Association (the employing agencies) and the teaching profession. The structure provides for 10 representatives from colleges and universities and 9 from groups concerned with the quality of teacher education programs.

¹Zook, George F. and Haggerty, M. E., The Evaluation of Higher Institutions - I-Principles of Accrediting Higher Institutions, The University of Chicago Press, Chicago, 1936, p. 18.

It is pertinent to note that accreditation by the Council is voluntary. Institutions apply for accreditation; no institution is forced to seek accreditation.

Its purpose is to improve "teacher education in the United States through:

1. The formulation of policies, standards, and procedures for the accreditation of institutional programs of teacher education.
2. The accreditation of programs of teacher education and the annual publication of a list of institutions whose programs of teacher education are accredited by the Council.
3. The encouragement of constituent organizations and other groups in the performance of their respective roles in the improvement of teacher education."

Only four-year institutions which are regionally accredited are eligible to apply for accreditation by the Council. There are more than 800 such institutions which prepare teachers. W. Earl Armstrong, Director of the Council in the Fifth Annual Progress Report on the N.C.A.T.E. (presented at the annual meeting of the Association of Teacher Education Institutions, Chicago, Illinois, February 12, 1959) stated that by 1960 it is possible that as many as 375 of these will have been evaluated. He did not hazard a guess as to how many of the more than 400 remaining would eventually apply. With its established policy of re-evaluating those institutions already accredited, the Council realizes, therefore, that it will be able to evaluate between twenty-five and thirty new institutions each year. Thus the Council has recognized that several years will be required to evaluate all eligible and interested institutions. The Sixth Annual List² contains 333 colleges and universities with accreditation status. In some cases the accreditation is provisional "which means that certain conditions must be met before full accreditation is granted." The list includes 282 institutions which were "blanketed in" from the American Association of Colleges for Teacher Education on July 1, 1954. "No change has been or will be made in the accreditation status of these institutions until they are evaluated by the Council."

Accreditation status is indicated in four columns - (1) elementary, (2) secondary, (3) school service personnel and (4) highest degree. A footnote relating to the first four columns shows some limitation to the scope of accreditation while an asterisk designates provisional accreditation when placed beside an X in any of the columns.

The Council has adopted several policies to guide its operations. Among them are:

"The Council evaluates all programs of teacher education for which each applying institution seeks accreditation." As stated previously, the preparation of elementary school teachers and preparation

²National Council for Accreditation of Teacher Education, Sixth Annual List, Effective July 1, 1959 to June 30, 1960. Mills Building, 17th Street and Pennsylvania Avenue, N. W. Washington, D. C.

of secondary school teachers are included in the categories. "The Council denies accreditation for any category in which there is a serious deficiency. If the program of teacher education in the institution is generally strong, but weak at some points, the Council may grant provisional accreditation for a period not to exceed three years during which time specified weaknesses must be corrected."

With reference to this policy, it should be noted that the Council now has and is using a Guide for the Development of Supplementary Information by Institutions Applying for Accreditation of Programs for the Preparation of Health and Physical Education Teachers and Recreation Leaders. This supplement is designed to elicit some information in addition to that requested in the more general guide of the Council. Although the general guide does call for some information about the preparation of health and physical education teachers and recreation leaders, the supplement seeks information under the following headings for the three areas: objectives, organization and administration, student personnel, faculty, curriculum, professional laboratory experiences, facilities, and general.

Still another Council policy in effect overcomes to some extent, the objection to accreditation which has prevailed for years - that much time and effort have been wasted in the gathering of information by different accreditation agencies. College and university officials have felt that this duplication of effort has interfered seriously with the on-going functions of teaching, research and public service in their respective institutions. Accordingly, the Council evaluates only those institutions which are accredited by the appropriate regional accrediting association for the general excellence of their programs and by the appropriate state department of education specifically for the preparation of teachers. The Council, early in its history, took steps to develop cooperative relationships with the regional accrediting associations which have led to joint and independent evaluations on the basis of mutually acceptable policies and procedures. "In all such evaluations, the Council applies its standards to the teacher education program of the entire institution and takes independent action with reference to the accreditation of the teacher education program."

As one of its procedures, "The Council relies on competent evaluators outside its own membership to visit institutions, report their findings, and recommend accreditation or denial of accreditation. Evaluators are selected from outside the state in which the institution applying is located. The Council uses the report of the evaluators as the major basis on which it takes action on an application."

Several years ago the Executive Director of the Council requested a list of persons from which it might select members of evaluation teams. This was done under the leadership of William F. Meredith in cooperation with the national headquarters of the American Association for Health, Physical Education and Recreation. This list should be revised periodically and kept up-to-date. It is reasonable to assume that an increasing number of the members of our professional organi-

zations will be requested to serve in such capacity. In this connection, the Council in setting up a panel of evaluators keeps two ideas in mind: (1) it is important to have a team large enough to do intelligent work, and (2) regional accrediting associations try to keep the accrediting group reasonably small in number.

What is the nature of the standards and guide used by the Council in its accreditation program? What has been done to include accreditation programs for the professional preparation of health, and physical education teachers and recreation leaders? National conferences, committee work and individual effort leading to the current status with the National Council for Accreditation of Teacher Education have been reported in the Proceedings of this Association during the past decade and elsewhere.³ It was gratifying to learn from W. Earl Armstrong, Director of the Council, last February that it had approved a Guide for the Development of Supplementary Information by Institutions Applying for Accreditation of Programs for the Preparation of Health and Physical Education Teachers and Recreation Leaders. This Guide now is sent by the Council to institutions which have applied for accreditation or are to be re-evaluated when they indicate that they have programs of professional preparation in one or more of the three areas. It should be noted that the information requested in this Guide merely supplements that which is elicited by the general guide of the Council. No standards are included in the supplement; those which are in the general guide are intended to apply to the areas with which we have genuine concern.

The Council regards the accreditation by a regional accrediting association as adequate insurance of several of its general characteristics. Within this setting, the Council evaluates the teacher education program - the clarity and appropriateness of the teacher education objectives, the effectiveness of the organization for teacher education, the student personnel program for teacher education, the patterns of academic and professional courses and experiences offered in the various teacher education curricula, the adequacy of facilities for teacher education curricula offered and the promise of the program of professional laboratory experiences.

As an example, the Council has stated the following standard under objectives of teacher education: "The teacher education objectives of

³Nordly, Carl L., "Our Number One Challenge Today," Journal of the American Association for Health, Physical Education and Recreation, June, 1952, p. 43.

, "The Accreditation of Professional Preparation in Physical Education," American Academy of Physical Education, Professional Contributions No. 4, November, 1955, p. 35-45.

, "The Development of the Standards and Guide," p. 3-7. Evaluation Standards and Guide in Health Education, Physical Education and Recreation, American Association for Health, Physical Education, and Recreation, 1201 - 16th St., N. W., Washington, D. C., 1959. \$1.00.

an institution should (1) indicate the school positions for which persons are prepared; (2) make clear the assumptions, beliefs, and values which the program, or any part of it, is meant to exemplify; and (3) indicate the institution's goals for improving education in general through research, service and experimentation." There are other standards under organization and administration of teacher education; student personnel programs and services for teacher education; faculty for teacher education - their qualification, number and teaching load; curricula for teacher education; professional laboratory experiences for prospective teachers and facilities and instructional materials for teacher education.

There are guides for the development of information pertaining to each standard.

The standards are stated in general terms; they are almost entirely qualitative rather than quantitative. Specific qualitative standards have been kept to a minimum to allow for reasonable flexibility. Another argument in favor of qualitative standards is the lack of specific quantitative standards which have been validated by research.

There are other recent developments which are of interest to us. W. Earl Armstrong last February reported in his Fifth Annual Report on N.C.A.T.E., that nine states had adopted policies which facilitate the certification of teachers across state lines - Florida, Georgia, Iowa, Kentucky, Missouri, Pennsylvania, Utah, Vermont and West Virginia. These states will grant a regular teaching certificate for the level or field in which the applicant is prepared through a program specifically accredited by the N.C.A.T.E. Other states are considering the adoption of this policy or some modification of it. He stated further, "When the State Directors of Teacher Education and Certification voted unanimously at their annual conference last summer (1958) to recommend that all states waive their regular requirements in the certification of graduates of N.C.A.T.E. institutions, it was with the understanding that the Council would ask each institution to attach to each transcript a statement certifying that the applicant had completed the regular teacher education program for the level and/or field indicated."

The publication of Evaluation Standards and Guide in Health Education, Physical Education, and Recreation Education by the American Association for Health, Physical Education and Recreation during the current year has resulted in the availability of a document which institutions will find useful in the self-evaluation of their programs of professional preparation in one or more of the three areas. This document, the result of a workshop, follows the general standards and guide for accreditation by the N.C.A.T.E. and conforms to its format. However, there are changes in wording to apply to the professional preparation of health and physical education teachers and recreation leaders.

Members of the National Committee for the Improvement of Professional Preparation in Health Education, Physical Education and Recreation, and many other members of this Association realized several years ago the need for such a publication. No claim has been made for

its perfection. On the contrary, those of us who use it are urged to send suggestions for its improvement and revision to the national headquarters of the A.A.H.P.E.R.

Since accreditation or re-evaluation of programs already accredited is likely to be done only once in several years the use of the Evaluation Guide (long form) has been recommended as a means of improving programs of professional preparation and for the in-service growth of faculty members. Furthermore, its use also has been recommended for preparation for a visit by the N.C.A.T.E. Its use provides a faculty with a stimulating experience. It forces a department to justify what it is doing in the frame of reference in which it is operative — to justify the scope and limitations of its offerings and services, to state the major assumptions on which its professional preparation programs are based, to set forth the consensus of major beliefs held by the faculty members, to state the major values which the faculty considered in developing the present programs and the objectives for each of the curriculums. Such information is elicited by the Evaluation Guide for Standard I - Objectives of Professional Preparation. Other standards and a guide for the information for each are under the headings - organization and administration, student personnel, faculty, curriculums, professional laboratory experiences, and facilities and instructional materials for teacher education.

No ideal curriculum is suggested because such has not been determined. No set pattern for the organization and administration of the department is indicated because we know of none that is superior. No standardized course titles have been proposed; such have not been condoned by the profession and we need to know much more than we do now about the kinds of experiences and their organization into a total pattern which would provide the best professional preparation in four or more years.

There is little doubt that a nationwide movement is under way to improve the professional preparation of teachers and leaders in health education, physical education and recreation. State, regional and national conferences are being held. Noteworthy, is the movement in Oregon and Washington reported by Vernon S. Sprague in the September, 1959 issue of the Journal of Health, Physical Education, and Recreation, (pages 21-23, 77) titled, "Operation Bootstrap in Teacher Education Programs."

Our challenge always has been to improve the quality of programs of professional preparation. It continues to be our number one challenge in the face of increasing enrollments and the justified hostility toward mediocre instruction at all levels of instruction.

CHANGING PATTERNS OF GRADUATE STUDY IN PHYSICAL EDUCATION

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Those who would understand some of the changes which are taking place in graduate education must of necessity be aware of the many forces and conditions that have shaped current practices which now prevail in American universities. In our educational and cultural history we can find the roots of the vast difference of opinion that characterizes contemporary discussion of graduate work. Such differences have to do with the goals of graduate study, with its content and method, and with the selection and guidance of degree candidates.

Our educational tradition in advanced work clearly indicates the influence of the essentially aristocratic colonial college of liberal arts which was 300 years in the making. In this formal atmosphere of learning, reliance was on sectarian authority and mental discipline with emphasis on a fixed curriculum which stressed the alleged fundamentals of knowledge and truth. Economic and social changes made it impossible for institutions of higher learning to maintain this narrow point of view and also provide the professional emphasis which students were demanding. Since the turn of the century the dominant pattern has been one that leans toward strong major field concentration supported by one or more closely related minor subjects. However, in the light of historical background it is not surprising to find those who believe the American graduate school to be an extension of liberal arts education, advocating ideas of administration, curriculum, courses, assignments, recitations, and examinations colored by the concepts governing undergraduate study in the arts and sciences.

The ideals of freedom of learning, teaching, research and publication of findings characterized by many European universities gradually had its impact upon graduate education in this country and led to the major conflict which now exists in the area of graduate philosophy and standards. Those who hold steadfastly to the European ideals are unwilling to compromise on the importance of developing initiative, self direction, and self-reliance. At the graduate level this concept of scholarship calls for a faculty and student body who frequently work informally and independently, in small groups or individually, in seminars, laboratories, libraries, and field situations. Progress is not measured by class attendance, the preparation of day-to-day assignments, quizzes, academic credits and other items characteristic of the typical undergraduate curriculum. It is measured instead by the power a student demonstrates in performing the scholarly task he has undertaken. The average professor finds it easy to offer intellectual agreement to these ideals but when it comes time to gauge performance or to set standards, he tends to fall back on the quantitative paraphernalia of the typical undergraduate college.

Perhaps the quickest way in which to describe the economic, religious, political, intellectual and other social forces that shaped the early graduate schools in the United States would be to look back on them from the standpoint of the founders of Johns Hopkins University - our first full-fledged graduate school. However, this would represent a major treatise in itself and time would not permit such an effort. It is perhaps sufficient to call attention to the fact that on the recommendations of Presidents Charles W. Eliot, of Harvard University, Andrew D. White, of Cornell University, and James B. Angell, of the University of Michigan, the Johns Hopkins trustees selected in 1876 as the head of the new university, a man who was willing to meet the challenge of these forces. Daniel C. Gilman, who at the time was president of the University of California, was the man tapped for this honor. Gilman was determined that Johns Hopkins would be developed to compete with the European universities where most of the American graduate students were taking their work. He planned to do this by retaining most of their good characteristics and at the same time endeavoring to serve contemporary needs in the United States. He indicated that all branches of knowledge would be taught and investigated, that professors would be free to formulate conclusions and offer instruction in accordance with their findings and that students would be at liberty to take whatever subject they choose as best suited to their interests and capacities.

Gilman realized the difficulties he would encounter in this break with tradition but he sought the counsel of professional colleagues at home and abroad and the graduate school which seemed to materialize overnight was the product of this considered planning. His advisers, especially Eliot, White and Angell, knew from experience how important it would be to protect this new venture from violent conflict with adverse educational, religious and political pressures. To do so the new graduate school was developed without sectarian or government control. It had no school of theology and no traditional college of liberal arts.¹

This vision of the great university leaders of seventy-five years ago was of course not instantly or perhaps ever completely realized. Actually, programs had to be developed in keeping with public sentiment and with what the available faculty could conceive and implement in terms of the capacities and background of the students who enrolled.

It is interesting to note that Gilman believed college and university professors to be in need of special training and that shortly after going to Johns Hopkins he brought G. Stanley Hall in to initiate some graduate work in education.

At the turn of the century there existed a tendency to permit strong undergraduate departments in the better established fields of knowledge to undertake graduate work long before the newer fields had even developed substantial undergraduate programs. This arrangement practi-

¹ Hollis, Ernest V., Toward Improving PhD Programs, American Council on Education, Washington, D. C., 1945, p. 4.

cally forced many of the newer fields into work at the graduate level long before they had the necessary staff or equipment.

An examination of university catalogs at this time would show that graduate instruction in the leading universities in this country was in the hands of staff members who did not have the doctorate or in some cases even the masters degree. A strong department was fortunate if it had more than one professor with an earned doctorate who was experienced in and zealous for the European ideals of university teaching and research.

The scarcity of outstanding scholars and adequate financial resources caused many first-rate universities, Johns Hopkins and Chicago leading the list, to strengthen their graduate departments through the use of distinguished visiting lecturers who gave instruction during certain semesters of the school year much after the fashion of the German university system. These same two institutions were also the first to subsidize the publication of scholarly findings either as monographs or as articles in scholarly journals. This innovation strengthened the desire of professors and advanced students to do research of high quality which would be worthy of publication. It also led to the greatly increased use of seminars which Hall referred to as "graduate workshops" and guided laboratory experimentation which he called "elbow teaching." The professors frequently outnumbered the students in such seminars.

In order to hold graduate students for longer periods of residence and cut down on the migration to European universities, strong fellowship programs were initiated. As Nicholas Murry Butler of Columbia University explained, the idea of fellowships and scholarships was not new in American higher education, but Johns Hopkins put them on a different basis by opening them to competition and by making the stipend larger than anything then known.²

The many problems which faced the better institutions by 1900 were reminiscent of those we face today. Much of the pressure for standardization of requirements come from former students, from the foundations who were willing to pour money into American graduate education, from various accrediting groups and from professional organizations. Then, even as now, there was great disparity among graduate schools concerning admission policies, purposes of the various graduate degrees, residence requirements, specific curriculum credit demands, the structure of so called majors and minors, language requirements for the doctorate, examination procedures for candidacy and dissertation or theses standards.

The many difficulties encountered in this development of American graduate education stems from its efforts to adjust to the fundamental problems of contemporary society. The organization of departments in the newer fields of learning and their subsequent expansion into the area of graduate study was frowned upon in many institutions. The field of

² *Ibid.* p. 20.

physical education was no exception as can be seen from the fact that it took twenty-five years from the time of the Johns Hopkins experiment for the first masters degree in our field to be established, and another quarter of a century before the first doctoral program was offered.

In the year 1901 the first major in the field of physical education leading to the master's degree was developed at Columbia University. The first Doctor of Philosophy degree in the field of physical education was offered in 1924 by two institutions, namely, Teachers College of Columbia University and the School of Education of New York University. Five years later Stanford University and the University of Pittsburgh became the first institutions to offer the Doctor of Education degree with a major in physical education.³ However, Indiana University was the first institution to award this degree.

According to Eliot only four state universities in the United States taught graduate courses in physical education in 1927, while only one of these offered a master's degree in this field.⁴ At the time Dr. Harrison Clarke made his study of the masters degree in 1933-34 there were a total of twenty-six institutions offering majors in physical education leading to the masters degree and thirteen of these were state universities. Clarke further discovered that nine of these twenty-six institutions had majors in physical education leading to the doctors degree. It is of interest to note that most of the institutions offering the masters degree indicated specific courses to be completed in the major field and that this work usually comprised 20 to 24 semester hours of the degree requirements.

The recent concern on the part of institutions for the quality of their course offering at the graduate level and the various degree standards can be more readily understood if an examination is made of the growth of graduate education in the United States. It is doubtful if Eliot, White, Angell or Gelman in their efforts to develop graduate education in this country to the end that American "scholars" would remain in this country for their advanced degree work ever envisioned an expansion that would see the awarding of approximately 60,000 masters and 9000 doctors degrees in 1956. These figures represent a greater number of degrees in a single year than were awarded during the first fifty years of graduate education in the United States. In 1900, approximately 27,000 bachelor's degrees were awarded while 40 years later (1940), there were 27,000 masters degrees conferred.⁵ According

³ Clarke, H. Harrison, "A Survey of Requirements for the Master's Degrees in Physical Education" School of Education, Syracuse University, 1935

⁴ Elliott, Ruth, Organization of Professional Training in Physical Education in State Universities, Bureau of Publications, Teachers College, Columbia University, New York, 1927.

⁵ Association of American Universities, "The Masters Degree," Forty-sixth Annual Conference Proceedings, 1945.

to the United States Office of Education there were 5,802 masters degrees and 396 doctors degrees awarded in the fields of health and physical education during the interim 1954 to 1958.⁶ In the 1958-59 school year it is safe to assume that more than 100 doctors degrees and 1600 masters degrees were conferred in these fields.

How well have graduate programs in physical education succeeded in meeting the challenge of this tremendous growth? I should like to use the remainder of the time allotted to me to discuss some of the changes in the pattern of graduate work which it seems to me will have profound effect upon the field of physical education.

1. There is a tendency in general to raise the standards for admission to graduate study or in some institutions to actually apply the standards to which they have been giving lip service for years. The basic problem in admission to graduate study is one involving an effort to predict success in advanced degree programs. To this end many institutions are beginning to apply additional and hopefully improved criteria for this rather difficult task. In so far as students have objectives of personal enrichment, certification meeting, or stipend collecting, there may be other prediction problems. However, there is increasing agreement that such students should be required to meet the same course achievement standards as degree aspirants. The most frequently used quantitative-type predictors of graduate success include previous academic record, achievement test scores and aptitude test scores. Such measures have good reliability and do increase prediction success slightly. On the other hand non-quantitative predictors such as the interview, experience record, letter of reference and projective test protocols are still in wide use regardless of their lack of reliability.

Prediction is usually followed by selection which is basically a post-prediction, judgmental process involving many variables beyond those in the prediction formulas such as supply of applicants, number of students who can be accommodated, objectives of the school, personal preference of the faculty, persistence of the applicants and the financial resources of the institution. Currently most graduate schools seem to be engaged in a struggle to find empirical evidence of relationships between criteria of success and currently used predictors; sharpening of distinctiveness of the criteria by more valid course grading; reliable comprehensive examinations; critical evaluation of researches; and experimental trial of new predictors. The problem is being viewed as an effort to identify good students. The elimination of poor ones is an unhappy side-issue.⁷

⁶U. S. Office of Education, Earned Degrees Conferred by Higher Educational Institutions, 1954-58, Circular No. 570, Washington, D. C.

⁷From notes prepared by Dr. George Fahey, Professor of Psychology, University of Pittsburgh, for faculty discussion of current admission policies at the University of Pittsburgh.

2. There is a changing philosophy concerning the objectives of graduate education and how these objectives are to be attained. The accumulation of "course credits" or "credit hours" as a measure of progress toward the fulfillment of graduate degree requirements is being abandoned. In its place institutions are endeavoring to identify areas of competency. Larger units of work are being developed, some of which will continue to represent courses or seminars while others will involve directed study, research, teaching, and the like. In order that institutions may offer better guidance and exercise some formal controls over the graduate students engaged in a more independent and individualized program, higher residence requirements are being imposed and more comprehensive examination policies are being adopted.
3. A more profound and expanded interest in research and the training of graduate students in the methods of independent research appropriate to their field at both the masters and doctoral level is evidenced which hopefully will have its impact upon graduate work in physical education. Many institutions are reorganizing their graduate programs for the first time in twenty or thirty years with the thought in mind that work beyond the baccalaureate degree must reflect more than additional courses in methods, curriculum, evaluation, supervision or administration.

All available data support the contention that many students seeking admission to graduate schools are really not prepared to embark on graduate study in their chosen fields because of lack of preparation in general education or in their respective specialties. As a result, it not infrequently happens that the first year of graduate work is devoted largely to remedying deficiencies in preparation. In such cases the degree is awarded for essentially undergraduate work. The desire for graduate work on the part of teachers is to be commended and should be given encouragement but desire is no guarantee of ability or background. High standards for teachers and school administrators in their pursuit of graduate degrees should be maintained in order to improve the professional status of educators and many institutions of higher learning are finally demonstrating a willingness to accept a responsibility in this direction.

4. Institutions are re-affirming their belief not only in the original intent of graduate work, namely, the mastery of a definite field of knowledge and the demonstration of capacity for doing independent and scholarly investigations in some field, but are once more indicating a strong interest in the capacity which students have for integrating their field of specialization with the larger domains of knowledge and understanding. As a result many graduate programs in education, particularly at the masters level, now allow a greater

selection of courses from the areas of the physical sciences, the social sciences and the humanities. This tendency is in turn a reflection on the increasing demands of undergraduate curricula for breadth as well as depth.

5. Many institutions are becoming more exact in identifying the background preparation expected of those accepted for graduate work, particularly at the doctoral level. There is a renewed concern for preserving the standards of scholarship which have traditionally been associated with the doctors degree. The intellectual discipline and the exacting performance required of candidates is once more coming to the forefront in institutions which all too long have been guilty of holding to weak and ineffectual standards. Qualified institutions are accepting the challenge to select and train men and women who are to be worthy of the doctorate and who recognize their responsibility to society by virtue of having been awarded this degree.

In conclusion let us remind ourselves that education is a dynamic enterprise and any tendency toward a static state must ultimately lead to the complete defeat of its basic purposes. This is especially true of graduate work since here we are attempting to utilize the best resources of the college or university to inspire and educate at an advanced level those individuals who are to be intellectual leaders in the various professions. A fundamental obligation of a graduate school is to establish and maintain standards of excellence in this process. It is responsible to students for an educational program which requires that they achieve maximum personal development as well as a high standard of academic achievement. It is responsible to the public that degrees be conferred in merited fashion consistent with its avowed goals. These goals must include a concern for the individual's character, social awareness and professional dedication. It is responsible to prospective employers for producing persons who are qualified to embark on certain tasks with a scholarly approach, with definite insight and understandings in some specialized field and with definite cultural and intellectual attainments.

Physical education will continue to occupy a place of importance in American education to the extent that it recognizes these responsibilities in its endeavors particularly at the graduate level. For the most part the interpretation of our profession and the research necessary to improve and expand its contributions to society will rest on those who hold advanced degrees. There can be no compromise of graduate standards if physical education is to provide the leadership which will enable it to hold an eminent place in liberal education. There need be no fear that physical education will occupy a place of less importance than science or mathematics if our graduate programs are willing to train men and women who are competent and dedicated teachers rather than mere technicians, who demonstrate an interest in writing and speaking intelligently about their field, and perhaps most important, who are willing to accept the challenge of expanding the frontiers of knowledge through scholarly effort.

GRADUATE PREPARATION FOR RESEARCH IN PHYSICAL EDUCATION

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In developing the present paper I think it fitting that I give a thumbnail sketch of the background of graduate education in America. This will be followed by some remarks on the nature of research in physical education and the final portion of the paper will be devoted to the possible channels which an investigator in our field might follow. In gathering the material numerous sources were consulted and I have drawn rather heavily from the writings of Bernard Berelson, Walter Cannon and selected conference reports.

As most of you probably realize the first successful establishment of a graduate school was the one at Johns Hopkins in 1876. This first phase of graduate education was a period of struggle and was marked by failures at Harvard, Yale, Pennsylvania, Michigan, Virginia and others. The second phase has been termed by Berelson as the "university revolution" and extended from approximately 1876 to 1900. This was an important period in that it definitely established the issue of whether there would be a graduate school. Conflicts continued and the period was marked by the following features:

1. Organization of the university graduate faculty.
2. Graduate school on top of undergraduate college and in some ways subordinate to it.
3. Advances along the professional, utilitarian road of graduate study.

During the 1900-1920 era, the third phase, there was a period of consolidation and standardization. A number of issues were identified and debates began which are still going on today.

The fourth phase extended roughly from 1920 to World War II and was marked by a sharp growth. In 1900-1920, the number of earned doctorates increased by 150 per cent and in 1920-1940 period the number increased by 600 per cent. The doctorate degree was extended to a variety of professional and quasi-professional fields which included agriculture, business, education, home economics, journalism, engineering, librarianship, nursing and social work. In general the whole process renewed and intensified the early arguments of standards and the "service" role of graduate education.

Now in the fifth phase the graduate school is experiencing continued growth. A few criticisms of the graduate school which have persisted over the last half century or longer are:

1. Not maintaining standards of excellence.

2. Too professionalized and the counter argument of insufficiently professionalized.
3. Too much stress on research, versus too little research.
4. Not admitting the right student and/or completing the job on those in process.
5. Too loose; too remedial; too easy and too unimaginative.
6. Not organized to bring out full potential of the student.
7. Dissertation as an original and independent contribution of knowledge is questionable.

In reviewing various conference reports and meetings concerned with graduate education including the conference held in 1950 at Pere Marquette State Park on Graduate Professional Preparation in Physical Education, Health Education and Recreation Education, all papers agree that one aspect of graduate education should be concerned with the training of research workers. This does not infer that other phases of the graduate program are unimportant. However, the present paper will be solely concerned with the training of the research scholar.

In discussing the second topic, the nature of research in physical education, it becomes apparent that numerous fields can be involved. A partial list of disciplines which contribute to the knowledge of physical education would include anatomy, anthropology (physical as well as social), bio-chemistry, biology, history, kinesiology, mathematics, physics, physiology and psychology. Obviously, it would be impossible for the student to master such an array of allied fields. Somewhere in his training the student must make a decision and limit his studies accordingly. It should be pointed out that the research worker in physical education is required to have a background in one of the allied fields as well as his own field. The fact that other disciplines contribute to the research effort in physical education can be readily substantiated by a perusal of periodical literature. A great volume of material exists in non-physical-education journals.

Recently a Colloquium on Exercise and Fitness was held at Allerton Park, Monticello, Illinois. The writer thought that the papers were excellent but couldn't help noticing that most of the research reports were given by people outside of physical education. Actually we should be doing more of this type of work.

While research programs have grown over the past fifty years our effort in this direction is still a piddling one. Look at it from this standpoint. We have approximately 25,000 members of the American Association for Health, Physical Education and Recreation. The section concerned with research, namely, the Research Council has 103 members. This is approximately 0.4 per cent of the membership. If we were to look at the expenditure on research in our field in comparison to the total expenditure in the entire field I am quite certain that the percentage would pale into less significance than 0.4 per cent.

The writer is fully cognizant that the research worker in physical education will always represent a small portion of the total personnel

in the field. This same picture exists in industry and other professional fields. The fact that the research program is small percentage wise should not deter from its importance. An analogous situation might be the weight of the heart in comparison to the total body weight. The life blood in both instances is dependent upon a relatively small percentage of the total.

In examining the third topic, namely the various channels which a research worker could pursue with profit, it is impossible to ignore a few remarks regarding the undergraduate program and the qualifications deemed necessary for research work.

In September of 1959 the American Association for Health, Physical Education and Recreation sponsored a conference concerned with Science Requirements in Physical Education in Colleges and Universities Throughout the United States. The following two tables appeared in the summary of the questionnaire.

TABLE I
NUMBER OF CREDIT HOURS REQUIRED IN BIOLOGICAL,
PHYSIOLOGICAL AND APPLIED SCIENCES
N = 195

No. sem. hrs.	No. of instit.	%
0-2	2	1
3-5	1	0
6-8	10	5
9-11	19	10
12-14	43	22
15-17	40	20
18-20	41	21
21-23	16	8
24-26	10	5
27-29	7	4
30-32	4	2
Over 32	2	1

In Table I the science requirements vary all the way from zero to 32 semester hours with about 73 per cent of the 195 institutions requiring between 9 and 20 semester hours. The striking feature of Table II is that there is not a single course listed which is required in all the 235 colleges which answered.

TABLE II

PERCENTAGE OF COLLEGES REQUIRING COURSES LISTED
N = 235

Course	%	Course	%
General mathematics	23	Nutrition	13
Algebra	9	Physics	15
Trigonometry	3	Human anatomy	76
Other math	2	Applied anatomy	14
General psychology	71	Mammalian physiol	2
Educ. psych.	74	Human physiol.	77
Human growth	46	Physiol. of exercise	39
General chem.	25	Kinesiology	72
Org. chem.	3	Body mechanics	28
Inorg. chem.	4	Adapted phys. educ.	43
Other chem.	1	Correctives	24
General biol.	54	Therapeutics	7
Botany	11	Tests and meas.	58
Microbiology	6	Statistics	8
General zool.	33		
Genetics	3		

Since the graduate program is generally built on the undergraduate work and few students are interested in picking up an additional 15 or 20 hours of undergraduate study when they are in graduate school the student interested in a research program should start planning early in his professional career.

It is my opinion that the one feature which should be incorporated into every graduate program is flexibility. Under ideal conditions the program would be tailor-made for the individual. This would enable the student to get sufficient depth so as to be able to carry out independent research. There are undoubtedly some types of training which should be common experiences for all persons interested in research. The student should be trained in the use of the library, as this is a veritable mine of information for the competent scholar. It becomes a mecca of confusion for the inept. The research worker should have some training in statistics even if this is restricted to a reading knowledge. An examination of the 1958 volume of the Research Quarterly indicated that approximately 70 per cent of the articles contained statistical concepts. Since this is the official research publication of the profession it seems logical that the person interested in research be able to read the periodical.

The training of the research worker should be such that he has exposure and experience with research techniques prior to his writing of the master's degree. In many instances the master's thesis represents

the initial research attempt of the student and in too many cases the same can be said about the doctorate dissertation. In fact, in some instances the latter is not only the initial but the terminal research effort of the student. We could no doubt learn some lessons by observing the training of research workers in the field of science. The research efforts in these departments in our universities represent an on-going, daily, 365-days-of-the-year process and not something relegated to off-hours. Graduate students have an opportunity to share in research projects and gain considerable experience through this route. The same type of activities should exist in physical education departments offering advance degrees. It would also be noted that in absentia work is practically non-existent.

While it is difficult to fix any pre-requisites regarding the abilities of prospective research workers, certainly the following suggested by Cannon in his Way of An Investigator would seem to be important:

1. Curiosity
2. Imagination
3. Keen powers of observation
4. Retentive and facile memory
5. Patience
6. Ability to write with clarity and brevity
7. Vigorous health
8. Intelligence

While the previously mentioned requisites will no doubt exist in varying amounts in different people, anyone devoid of these probably will not be intrigued with a career in research.

The research worker's training should be sufficiently rigorous to compare favorably with that of fellow research workers in other disciplines. The idea of offering special courses for our students, like "Anthropology for Teachers" or "Mathematics for Teachers" holds little appeal. Courses of this type are apt to be watered-down versions with considerably less scholastic rigor than the regular offerings. It is a curious statement of fact that when we attempt to establish academic respectability for the physical education curriculum we invariably pick out courses like anatomy, chemistry, English, sociology, etc., and rarely list physical education courses.

Many of the graduate students in physical education are handicapped because they have not done sufficient reading. It is difficult to envision any scholarly work emanating from an individual who has not read considerably. I sometimes feel that we ought to develop a reading list to be used as a guide for graduate students. This would be similar to Raymond Pearl's To Begin With. This might be a point of departure toward upgrading the quality of graduate work and until we are able to assume a position of scholarship comparable to other disciplines our research effort will continue to be hampered.

In summary, I would suggest that the graduate program for the research worker should have the following characteristics: (1) flexibility

so the student has sufficient choice of an allied field (2) depth in an allied field so the student is able to carry out independent research (3) training in statistical and library techniques (4) apprenticeship training on research projects and (5) a minimum of in absentia work.

Basic Instruction

ORIENTING STUDENTS TO PHYSICAL EDUCATION

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In one sense of the word, "Orienting Students to Physical Education," as a title is an unfortunate one, because at the very outset it might be assumed we are dealing with an orientation unrelated to, and one quite dissimilar to that of orientation to a total college educational program with all its planned and involved experiences. However, it will be assumed we are approaching the problem of orienting the student in his entirety to a physical education program, which is in turn an interdependent and contributing component of a wide variety of college educational experiences. Consequently physical education for the student should be understood as an important facet of his college developmental program, and not an appendage or addendum for decorative or therapeutic purposes.

With this brief introduction it would seem appropriate to consider a few rather pertinent facts and prejudices related to the problem. College students, especially entering college students, in the areas of aptitudes, appreciations, and levels of achievement and aspirations are a most heterogeneous group. Not only in potential ability and acquired skills do they manifest diversity, but also in attitudes, and in the degree of demonstrated emotional stability or distress in physical activities. Because of existing multiformities in so many categories it becomes essential to recognize, analyze, and plan for individual students within an interrelated, coordinate, and purposeful college program of physical education, a program appropriate for each individual student. If such a program is to be effected to serve individual students we must know a great deal more about our entering students than we now know in most of our colleges. We need to know a great many things about each student to help him become oriented. We need to know what his potential motor capacity is in a general way, and also for specific activities. We need to know what his level of achievement is now, in each of a number of activities. An entering student who has studied French three or four years at the secondary level and is able to demonstrate a high level of proficiency in the language should certainly not be required to study French with a group of beginners. Neither should a lad who is highly proficient as a soccer player be enrolled in a soccer class for beginners. The basic physical education program should be essentially a learning program where new skills are acquired or those presently attained, improved. This should be recognized by students as well as staff.

Orientation should be a continuous and on-going process. Many entering college students, during initial campus experiences, suffer from acute nostalgia. In novel situations, with the loss of security, status and comfort enjoyed in the old hometown environment and social sphere, the stark discovery that he is just another Joe College is conducive to shock. To be sure there are many very discomforting lumps in throats, and splanchnic distress is common, as the cold facts of college life are revealed and as yet misunderstood. In general, and in some instances in specific areas, it is the practice to provide intensive and oftentimes over-extensive orientation programs in a relatively short period of time. Quite often the student at the conclusion of such a program finds himself in agreement with the rather pungent observation, "if you are not completely confused, you just don't understand the situation here." Adequate follow-up programs are essential if orientation programs are to be effective.

These follow-up programs for orientation in physical education are just as important as they are in any other area. During the typical freshman orientation week the entering student is, for the most part a victim of the receiving end of a one-way communication operation. Subsequently, he should have an opportunity to express his ideas, contribute to the planning of his college program by providing a background of his previous experiences as well as his ambitions for the future, and to demonstrate achieved levels of proficiency. Most of all he needs to know someone is sufficiently interested in his welfare to take the time to listen to him, to advise him, and help him. Human nature has not changed much, if any, during the last few centuries, even though its manifestations have.

At this point I should like to interject the hypothesis that the acquisition of enthusiasm of vital interest in any type of program or activity is much more likely to be caught than taught. The regard a student will have for the basic program will be highly correlated with the regard those who administer and conduct the program appear to have for him and his welfare, and the status in which the program is held, generally, by the college community. Appreciations are developed through exposure to excellence, but the transition from appreciation to action is dependent upon how strongly one feels concerning the desirability or necessity for action. The idea that most college youngsters will become active and enthusiastic participants in a physical education program because its values are presented in a one-hour-per-week lecture and discussion session provided for that purpose, stems from a predominantly mechanistic conception and approach to the problem rather than a consideration of the reality of humanistic motivation. Part of the responsibility of the staff is to inspire as well as to inform and advise. Transition to action may be effected better through contagion than through persuasion. Consequently, orientation must have as one of its objectives that of establishing the significance of a physical education program for each individual student. Certainly many auxiliary instructional aids and devices are most valuable and essential, in such a

program, but in the final analysis the most highly regarded approaches and instruments are futile unless the student feels participation in the program for him is significant and important. Increase in knowledge, the development of proficiency in skills and appreciations, must be thought to be of value to him and for him, not merely something he learns for the sake of learning it or to be assessed a satisfactory mark.

What, then, are some suggestions to achieve such significance? The program of basic instruction in physical education should be consistent with and contribute to the aims, objectives and purposes of the college. Furthermore, the physical education requirement should have the same status as other existing departmental requirements for general education. That is to say, there should be no differentiation with reference to college credit earned in physical education and that earned in other departments. The same should be true of grade point value in terms of graduation requirements. Standards in terms of staff, facilities, equipment, and programs must be comparable with other departments of the college to justify such status.

A competent staff with a sympathetic understanding of the total departmental and college programs and the various components which comprise them, is essential. This staff must know the various possibilities and limitations in respective areas of the program and be able to counsel students in terms of potentialities, needs, interests, and ambitions. As a matter of fact, in an ideal program, not only should members of the physical education staff be able to counsel students with reference to their respective physical education programs, but they should also be able to extend this counselling over into other subject matter areas in an effective and constructive manner. The corollary is also true. That is, faculty members in departments other than physical education who counsel students should understand the purposes and objectives of the physical education program well enough to enable them to advise students appropriately in planning fulfillment of their respective physical education sequences.

Effective testing and evaluation programs are necessary. They should be conscientiously administered and results carefully analyzed for the purpose of individual counselling and planning. Accurate and complete individual records in this connotation are of prime importance.

It seems to me that on any campus almost universal acceptance of the desirability of wide participation in the co-curricular or extra-curricular program is one of the most convincing manifestations of successful orientation. Participation on the part of staff in this program should include not only members from the department of physical education but all-college staff representation. Students then recognize the program as not a "do as I say," but "do as I do," one.

In a democratic society such as ours, the motives of emulation, compassion, and fraternity are basic to individual and group fulfillment. Let us not overlook the fact that regardless of the many invaluable instruments, devices, and other media used by us in an orientation program, the degree to which a student identifies himself with a college

program, or any part of it, is directly and intimately related to the vital and resolute human frailties and strengths within him at any particular time. Orientation is not a simple task. Neither is it static or sterile. It is one requiring insight, ingenuity, and persistence. There are times when one feels fully rewarded for the efforts he has given in its cause.

2 (ARE OUR PROGRAMS WELL ORIENTED
IN THIS JET PROPELLED AGE?

JAMES W. LONG
University of Toledo

Physical Education is facing a crisis! What can you and I of the Physical Education profession do to help young Mr. and Miss America through "word" and "deed" to grow into strong, dynamic, efficient and proud citizens of the future? What are the many potential benefits and opportunities inherent in our physical education program?

Misconceptions concerning physical education are quite prevalent. A clear understanding of what we do and who we are is imperative! The past experiences of many of us of the older generation have been one-sided, meager, or entirely lacking during our school days. Far too many of our present generation of students have experienced a narrow and limited physical activity program. Few of the commonly accepted objectives of physical education have been conscientiously striven for, let alone attained. Are we willing to constantly study and review our program for all possible avenues of improvement? Unfortunately, there is no one panacea or best method for the successful attainment of the objectives of our profession.

There is one approach, in my humble opinion, that has tremendous possibilities for a more effective program of education for all students. This is a well planned and functional orientation plan. Any orientation development, no matter how well thought out, will not be sufficient in itself. It must be used with other media for the successful attainment of the objectives of physical education.

One suggested orientation program has proven successful because of its specific allocation of class time for a direct "selling" approach to the basic foundations and practical fundamentals of physical and health education. In classroom discussions and lectures, the "Why," "What," "How," and "Benefits" of Physical Education are stressed. Emphasis is placed upon explanations of good posture, semi-objective posture examinations, plus general muscular strengthening exercise as follow-up. Motor ability testing and careful classification of students, clarification of administrative details and routine matters covering such factors as attendance, grading, dress and health and hygiene fundamentals are a vital part of this "orienting" approach. In my opinion, the time that is spent on orientation, based upon a broad view of the objectives of

physical education, is most productive in an educational and motivational approach.

The administration of the orientation phase will vary according to the type of professional program you are trying to put into effect. The survey type of physical education required activity program for the first two semesters of the college freshman year lends itself well to the orientation factors. Four to nine class periods each semester may be utilized for this purpose with excellent results. Since there is so much material to cover in such a short time, the unit on posture might well be emphasized during the first semester. The "Why," "Benefits," and "How" unit could be stressed the second term. A basic text¹ which covers this essential material is an invaluable reference source for students and teacher alike.

First year students in physical education need a clear understanding of the routine details of the required program. Grading, uniforms, attendance, cleanliness of self and equipment, emergency health measures, and possibilities for advancement in physical education are of vital concern to the new student. This strengthens his security and confidence in himself and in his ability to succeed in college.

Many departments have developed 16mm, color films of their physical education, intramural sports and recreational activities. What more vivid and descriptive explanation of their programs, if professionally done will impress students, faculty and alumni alike? It is my hope that a counterpart of the film "They Grow Up So Fast" will soon be developed for the college and university students and faculty. This professional orientation type film could certainly be used as a most able "salesman." The best "salesman," as we all know, however, is to "let the program sell itself" which it does, "for better or worse."

The "Whys," "Benefits," and "How" of physical education should give thorough understanding and create interest. For instance, the need for constructive activities and exercise is one of the vital needs in our present civilization. Present day life is, in so many respects, more dangerous to health than the primitive existence of our forefathers. The constantly increasing number of conveniences and labor saving devices have decreased the vigorous, outdoor type of work, for which our bodies are well adapted. Sedentary living, obesity, chronic degenerative diseases, and mental illness, to mention a few breakdowns, are growing in alarming proportions. Physical degeneration usually shows up in three distinct areas in man. The abdominal area expands and weakens; the feet flatten out and hurt; and the upper trunk - arms and shoulders - sags flabbily with insufficient strength to easily handle hard work or emergencies. The need for strength and physical efficiency varies according to one's age and occupation, but is still essential!

The benefits of regular exercise are unquestionably supported by scientific data. Practically every system and organ of the human body can be helped. The muscular, circulatory, respiratory, digestive,

¹ Reader may obtain information from author if desired.

excretory, and other systems will show marked improvement in function. Endurance, skill, coordination and strength are all essential by-products. Quotes, personal examples, and utilization of the latest evidence should prove conclusive.

Do we stand accused and guilty before the jury of public opinion for spreading the facts about health and physical efficiency in nice sounding slogans, fancy talk, preposterous claims and sporadic effort? Or are we devotedly putting in an all out effort to help every student learn to participate actively in a variety of sports activities based upon a safe and sane system of instruction? This requires intelligent action based upon physiological principles. Exercise has value if it is used intelligently, but like good medicine can be harmful if the prescribed dosage is unwisely administered. A sound orientation program should certainly improve a student's attitude toward taking this essential medicine to sound living and help him to wisely read and follow the directions on the bottle.

Another area that is often neglected on the college as well as the high school level of physical education is a functional unit on posture. Scientific evidence is accumulating showing the importance of proper segmental alignment of the body and its effect upon certain socio-economic, mental-emotional, and physical aspects of the individual. The lever system and articulating segments of the human skeleton are constantly shifting and changing as man goes about his daily work and play. This dynamic postural action continues throughout one's lifetime at varying degrees of speed. Therefore, our orientation program should be vitally concerned with the causes, effects and the preventative and curative measures of postural defects. Attitudes can be changed and correct habit patterns of exemplary carriage established.

For posture evaluation, a semi-objective posture examination has many advantages. A segmental alignment type of examination permits a good profile and posterior view of the individual to be checked as he stands normally. This examination can be completed in one class session after proper preliminary preparation. Permanent records can and should be kept as a part of a follow-up program made during the remaining semester's work. This can be meaningfully accomplished when carefully and selected conditioning exercises are accompanied with an explanation of the kinesiological action and their effect on basic muscle groups that dynamically move the body. Alert instructors, coaches and advisors of special interest clubs, such as weight-training and gymnastics, should certainly emphasize correct body use and alignment as opportunities constantly arise. A special class for individual corrective cases is also beneficial.

Finally, physical education programs become more individualized through a sound classification system which serves as a valuable means of making activities more suitable to the individual student. Selected motor ability test results will allow the students falling within the lower percentiles to be shifted into fundamental classes which stress basic coordinations and skills in game situations plus emphasis upon

physical fitness. The average students are placed in balanced survey type classes. Those with greater coordination and ability, who score in the upper 15 or 20 per cent of the classification tests, are permitted to be scheduled for elective courses in individual sports and recreation activities. The challenge, the chances for success and failure are more evenly balanced, and the resultant social approval can be attained more easily. Aren't these the three requisites of the "Formula for Happiness"? I firmly feel that happier and more successful students should be the positive result of this phase of the program.

To sum it up, let's survey, upgrade and streamline our college physical education activity instruction by introducing a live wire orientation program! This will help the individual student to be a better participant in a wide variety of activities, no matter what his skill. There will be a challenge and enjoyment in competing and improving his playing ability in different sports and recreational pursuits which will stay with him for the rest of his life. A successful physical education program can never be truly successful until it thoroughly orients the individual college boy to the basic attitudes, knowledges, and practice which result in vital, dynamic living of each day to its fullest. Only through fundamentals that stress satisfaction in activity participation, emphasis on the achievement of good posture, and moderation in daily living with its proper perspective toward diet, rest, exercise, cleanliness, mental effort, and emotional control - will the modern "Joe College" achieve adequate social relationships with his fellowmen and a feeling of kinship to his Creator. Conscious consideration of health and physical benefits to be found in well planned and conscientiously taught activity programs is the proper foundation for subsequent, successful practices and pursuits in all phases of a college education.

ORIENTATION TO INSTRUCTIONAL PHYSICAL EDUCATION AT MICHIGAN STATE UNIVERSITY

WAYNE D. VAN HUSS
Michigan State University

It is the purpose of this paper to present in brief some of the underlying thinking as well as a resume of the orientation program for beginning university students in instructional physical education at Michigan State University. It is hoped that critical appraisal of this program, now in its second year, and of other programs of its type will result in improved instructional physical education programs.

A curriculum and policies committee was appointed five years ago to study the Instructional Physical Education Program. Following rather superficial study, the group expressed dissatisfaction with the cafeteria-type program then in existence, even though it was a good program of its type. The committee questioned that the cafeteria program was

meeting the needs of students for living in present day society. The need for changes was recognized, but specifically what changes? The committee studied further, concentrating on the areas which seemed to have the most potential for providing a sound basis for change. The areas of major concentration were: (a) The longitudinal data regarding leisure time, physical activity and the expenditure of money in recreational pursuits. (b) Medical advances and problems, particularly the insurance statistics and the associated weight control, degenerative disease and stress disorder problems. (c) The scientific basis of exercise, (d) The history and philosophy of physical education from Sargent through the Dewey era. (e) The history of the Roman and Greek cultures, particularly the characteristics associated with their rise and fall. (f) The Korean Prisoner of War Study.

There is little question that the United States is showing signs of degeneration and may well be faced with a battle for survival. However, physical degeneration is but one aspect. National complacency characterized by the "play it cool" philosophy of the Korean POW and fostered by the prosperity and excessive sheltering and spoiling of American youth appears to be the major problem. Some force based pride in personal physical toughness and fierce patriotism seems to be needed today. It was reasoned that instructional physical education could best contribute to this need by bringing to bear all of the knowledge and techniques at our disposal to reverse the trend toward inactivity. This is our mission. With a technological culture such as ours, we must teach our students "how" and "why" to supplement their daily work with exercise, relaxation and play to maintain their physical vigor and mental-emotional stability.

Two major unanswered questions are faced immediately in implementing a program of this nature. Firstly, what motivates individuals to physical activity, particularly after leaving college? Secondly, how does one teach with sufficient impact that student attitudes and habits are altered to the extent that they will maintain activity even into the later years? The program has been organized to attempt to meet the stated objective with these obvious limitations. Only by research, revision and continued research may we ultimately teach with the desired impact.

A brief overview of the course follows:¹

Introduction. The first day a section meets, the reasons for teaching the course are presented. Cultural trends, the individual's need for preparation for living in today's society and the individualized approach used in the course are discussed.

The Self Image. Three days of testing follow to aid each student in obtaining a realistic self image. A minimal test battery is used: Vertical jump, 1/2 mile run, trunk flexion, agility run, 3-minute step test with a 1/2 minute pulse count from 1:00 to 1:30, body type, height, weight,

¹The complete workbook for the course is to be published early in 1960 by Prentice-Hall under the title Activity in Modern Living.

grip strength, and several anthropometric measures make up the test battery. The student plots his profile pointing up weaknesses.

Training Phase. The techniques of effecting physical changes are presented in lecture, and the class then engages in an intensive two-week training program. The objective of this training program is not to obtain any marked degree of physical fitness, but rather to experience physical change and to understand how this has been effected. The group is retested one week after completion of the training program.

Lecture Phase. The group next engages in a lecture phase in which the "How" and "Why" of exercise and of personal physical maintenance are presented. This is correlated with workbook material to enable the student to make personal application. The lecture phase is grouped into: (1) Cardio-respiratory. The work of Morris^{1,2,3}, and Eckstein⁴, in particular, are reviewed. The recent evidence of atherosclerosis in the early twenties obtained from autopsy work on deceased service men in Korea⁵ and in this country on deceased airmen killed in crashes⁶ is emphasized to show that the problem exists for the students "now." (2) Overweight. The Metropolitan Life Insurance Company data on overweight and longevity are reviewed.⁷ Mayer's striking work on exercise and weight control is covered in some detail.⁸ Sheldon's weight gain curves for the different body types are shown to emphasize that weight gain and weight control is an individual problem.⁹ It is emphasized that the weight-gain curves reflect the situation as it actually exists, but that by appropriate controls the pattern can be altered. (3) Relaxation and Play. The theory underlying Jacobson's techniques of relaxation is presented.¹⁰ The class goes through the various phases of the technique while lying supine on the floor. The rising incidence of mental emotional disorders is discussed and progressive relaxation and play are advanced as possible preventives. The basis for this approach is the therapeutic success of relaxation and the research of Menninger on play.¹¹ Emphasis is placed on the Menninger's findings which show that the emotionally stable play more as well as more intensively. These results are tied to the increased leisure. (4) Body Mechanics. The techniques of lifting, sitting, sleeping and handling heavy objects are demonstrated and experienced. The work of T. McClurg Anderson on injury prevention, in particular, is reviewed.¹²

Activity Orientation. Six to eight class days the class is exposed to the sports taught in the instructional program. First by film and then by participation. The philosophy here is to place a racket or a bat in the man's hand and let him play as much as possible within the time limitation to permit him to evaluate each activity for himself. Minimal history, rules and techniques are presented, just enough, we hope, so that each instructor can impart his love of the activity to the student.

Guidance. Each student completes the guidance section of his workbook in which he is forced to consider carefully the role of sports

NOTE: References are for bibliography which is available from author on request.

in his life. The student, however, guides himself into the instructional courses he will take to complete his physical education requirement. Body type, future place of residence, intended occupation, emotional release and carry over values are classed as the activity needs. These are matched against the student's activity interests and skill level to determine the priority listing of courses to be taken. Proficiency examinations will be offered to permit reduction of the requirement in cases where a high need is well satisfied by interests and skills. Finally, a personal prescription for effective living in the present and future is completed.

INTERPRETING THE PHYSICAL EDUCATION PROGRAM TO STUDENTS, FACULTY AND THE COMMUNITY

CARL E. ERICKSON
Kent State University

It is the responsibility of the physical education department to take the initiative to interpret the required physical education program to the faculty, the students and the community. If we all agree that this is our responsibility, our first step is to determine what the required physical education program offers. Literature in this field continually states that the physical education program offers students opportunities to contribute to their physical, social, and emotional development. What are the purposes of the physical education program? Are we meeting the needs of the college students of today?

In accordance with the principles set forth in a report of the President's Commission on Higher Education,¹ it is evident that physical education makes specific contributions to the general education program of higher education. There are certain objectives that we continually talk about, such as: (1) to develop and maintain a maximum physical efficiency, (2) to develop useful physical skills, (3) to act in socially useful ways, (4) to enjoy wholesome physical recreation. We talk about these objectives but are we, as a profession, setting the good example ourselves by being active participators? We often ask the question, "Why don't the students, faculty, and public understand the objectives and accomplishments of our program?"

First, let us evaluate the type of program which we are offering: Our instructional staff, our course of study units, the objectives for each course, the content of the courses, and the way in which we evaluate the student. Our number one method of interpreting our program of physical education is through the student who is taking the classes.

At Kent State University, we have over 4,000 students in our required physical education program. These students are going to make comments about the program which will either be good or bad. Most of them had better be good. There is a need for an in-service training program for all staff members.

How many of our colleges and universities are actually providing an in-service training program for their teachers? There is a definite need for better communication, not only to the students, to the faculty and to the community but for better communication within our own departments. How many of our people working within our own programs are not familiar with these requirements? We have the following

¹ Higher Education for American Democracy. Vol I, "Establishing the Goals". A Report of the President's Commission on Higher Education, Washington, D.C. United States Government Printing Office, 1947, pp. 50-58.

NOTE: Reader may obtain bibliography from author if desired.

requirements regarding physical education: (1) that all students achieve six-quarter hours credit for graduation, (2) that not more than one credit hour of regular service courses may be taken during any one quarter, (3) that students may select a variety of activities from the course offerings, (4) that it is recommended that students select two individual or dual activities (two team sports, social or folk dancing and swimming).

Our fellow staff members should be familiar with the status and role of physical education as a college and university requirement which Dr. Edward J. Shea has so capably reported². There are certain needs of physical education that our staff members should be familiar with, such as: the need for improved physical and mental health, the need for improved skills in sports and physical recreation activities, the need for the development of desirable social behavior in the forming of friendships, the need to be able to participate in some of our American sports as a part of our culture. During the past decade, the required physical education program has been challenged in colleges and universities throughout the United States. Our people had better become familiar with the challenges which have taken place and also be prepared to defend their programs.

A. Interpreting the Program to the Students:

Some of the ways in which we may interpret our required physical education program to our students are as follows:

1. During the registration period we should be prepared to be of service to the students and assist them in selecting activities which will meet their needs and also be to their liking.
2. We should assist in the development of better teacher-student relations. Dr. A. Gordon Nelson³ in his article, "Better Teacher Student Relations," lists in one of his tables, the qualities a group of undergraduates felt are the most desirable in college professors: Interest in students, fairness, pleasing personality, humor, mastery of subject, good voice, tolerance, clearness, effectiveness in teaching, poise, well-organized material, interesting presentation of material, appearance, helpfulness, sincerity, wide range of information, enthusiasm, and keenness of intellect.
3. Our college teachers should note the effect of their behavior upon their students. Students like to be treated as human beings. The instructor who is interested in his students is more likely to establish and maintain desirable working relationships with them than is the instructor who is not interested in them personally.
4. Communication with students may be handled on a personal basis through the newspaper or through various other aspects of the program. At our school we feel that the required physical

²Shea, Edward J., "The Status and Role of Physical Education as a College and University Requirement," Journal of Health, Physical Education, Recreation, December 1958, p31.

³Nelson, Gordon A., "Better Teacher-Student Relations" Phi Delta Kappan, Vol. 36 No. 8, May 1955, p. 295.

education program is a part of our total program and that it is not segregated; therefore, any relationship which we have with our students in health education, physical education, recreation, intercollegiate athletics, or intramurals is a means of developing a desirable relationship with them, the rest of the faculty, and, with the community. We encourage our student body to participate in half-time programs at varsity events such as football and basketball games. For example, the Golden K (a spirit organization at Kent State University) has the responsibility for developing half-time programs at basketball games. The program this year includes such presentations as: (1) Pep Band and Majorettes Night, (2) acrobatics by members of the Gymnastic Club, (3) demonstration by Pershing Rifles, (4) demonstration by the Sharks Club, (5) Service Club Night, (6) a wrestling exhibition, (7) Panhellenic Intra-fraternity Night, (8) Faculty Night, (9) demonstration by the Orchesis (modern dance), (10) Band Concert (sponsored by the music department of the University), and, (11) a Special Acts Nights (sponsored by student groups). We feel that this does a great deal to develop a better relationship among the student, the faculty and our department.

5. When gymnasiums and other facilities are not used for instructional purposes or intercollegiate athletic practice sessions, we make them available for intramurals and the students so they may participate in a recreational program. This means that facilities such as basketball courts, handball courts, squash courts, swimming pools, tennis courts and other recreational areas are available for students who wish to participate at times other than during the organized class periods.
6. We are endeavoring to establish a library within our gymnasium building which will provide students an opportunity to spend free hours in a worthwhile manner preparing for their classes. Professionally, this is desirable, and it is also appreciated by the students.

B. Interpreting the Program to the Faculty:

To develop a better relationship among faculty members, it is suggested that consideration be given to the following areas:

1. Faculty Committees:

- a. Many of our staff members serve on these committees. This provides an opportunity for them to interpret our program to other faculty members. Our people hold memberships on the following committees:

(1) Athletic Committee, (2) Calendar Committee, (3) Community Relations Committee, (4) Field Relations Committee, (5) Radio and Television Committee, (6) Student Housing Committee, (7) New Student Week Committee, (8) Placement Committee, (9) Special Council on Curriculum, (10) the Dean's

Council Committee, and (11) a Special Temporary Committee for the Construction of Group Housing.

2. We have established a placement coordinator who works cooperatively with the placement director of the University.
3. We have a supervisor of practice teaching for the women's program and hope to establish one for the men's program shortly.
4. The majority of the members of our staff are members of the Faculty Club. They are actively serving on several committees of the club such as: the Winter Carnival Committee, the Open House Program (conducted in our gymnasium), Faculty Wives Picnic and many other committees.
5. Faculty recreation has been provided to other members of the faculty by having established recreational periods for volleyball, handball, swimming, and a program for faculty children.
6. There are faculty swim periods during the week, and the ROTC staff has access to our facilities on Friday afternoons for their instructors.
7. Special demonstrations are presented by the Orchesis, Sharks Club, and the Gymnastic Club.
8. We are making plans to sponsor an Open-House, inviting all members of the University faculty to visit our facilities and observe our program in action.
9. Our latest development has been the establishment of a research laboratory which has met with enthusiastic approval on the part of the other members of the faculty.
10. It is recommended that our own faculty members visit other departments on campus and discuss the integration of our physical education program with other subject matter areas. This has proved most desirable. Particular areas of interest include elementary education, biology, physics, and psychology.
11. We have recently completed a survey of faculty members of the University pertaining to our athletic and physical education program.
12. The members of our physical education staffs should take the opportunity to visit the faculty club for coffee hour breaks during the week and socialize with other members of the University family. This will give the other faculty members a chance to become acquainted with us. It will also provide an opportunity for us to explain our program to them.
13. It is recommended that all of the members of health, physical education and athletics staff attend University Faculty meetings. This would include the president's faculty meeting, and the dean's faculty meetings. Our policy is that unless staff members have a legitimate excuse, they are expected to attend these meetings.
14. Communication is a major point of concern between the faculty of the University and also the faculty in our own staff. We endeavor to provide better communication by issuing bulletins periodically to keep our people posted on the developments of our program.

15. We are currently considering the possibility of developing a newsletter which we may circulate to all members of the faculty within the University.

C. Interpreting the Program to the Community:

The best way to interpret our program to the community is to have the community participate actively in our program. We have endeavored to do this in many ways such as: (1) sponsoring National AAU meets in swimming and gymnastics, (2) offering Red Cross First Aid and Water Safety courses, (3) sponsoring a Trainers Clinic which brings area people and the medical men in to participate as the instructors of these clinics, (4) providing an Officials' Interpretation Clinic for football and basketball, (5) hosting high school tournaments, (6) serving as consultants in developing programs in the area schools, (7) inviting children and adults in the community to serve as subjects in our research program, (8) assisting the County Soap Box Derby program, (9) serving as active members in community service clubs (this provides the in-road to have members of the staff speak to the different groups and inform them as to the type of program that we are conducting), (10) holding memberships in various community committees, such as the Welfare Association, church positions, such as deacons, ushers, committee members, etc., (11) contacting local newspapers, radio and television stations to help promote the program, (12) providing speakers for many PTA meetings, (13) providing a recreational program for the local business men at the University, (14) honoring local merchants and business people who have shown an interest in, and have made a major contribution to the program, (15) sponsoring Women's Sports Days in which other colleges and high schools are invited to participate, (16) interpreting the basketball and football programs as well as the physical education program to the public at luncheon meetings, (17) sponsoring Invitational Basketball Tournament annually at which time we solicit the assistance of the members of the Community, (18) offering a community recreational program on Saturday mornings for community groups (special programs are arranged in swimming), (19) giving outside groups the opportunity to use our facilities, (20) sponsoring recreational periods for groups such as Girl Scouts, high school groups, special clubs, Camp Fire Girls, band groups, (21) offering workshops in the area of fitness, health and education, (22) sponsoring Girl's high school playdays and high school guest day for high school boys annually.

Interpreting the program of physical education to the student, faculty and to the community must be a program of doing, not talking. Let us not always be saying, This is what we are going to do; let us be proud to say, this is what we are doing.

INTERPRETING PHYSICAL EDUCATION TO STUDENTS, FACULTY, AND THE COMMUNITY

ARTHUR WESTON
The Rice Institute

As we move into 1960, one of our most urgent concerns in physical education should be the problem of interpreting our profession correctly. This has not been done successfully in the past. For if it had been done, we would not need to interpret physical education to present faculties and community groups; they would have gained a measure of understanding as a student.

I have been asked to show how we interpret physical education to students, faculty and the community at the Rice Institute, and then to speak to the overall question of interpreting physical education to the general public throughout the United States. I shall begin with a brief description of the Rice Institute and then proceed to a discussion of special techniques used in our specific situation.

The Rice Institute is a tuition free, nonsectarian, private college located in Houston, Texas. A carefully drawn charter holds the enrollment to a maximum of 2000 students. This year we have 1594 undergraduates and 387 graduate students; of this total, 426 are women. At the Rice Institute, physical education and athletics are handled through two separate departments. The Physical Education Department is under the chairmanship of Mr. Gilbert L. Hermance; and the Athletic Department is under the direction of Mr. Jess C. Neely who is also the head football coach.

In the Department of Physical Education, we have a one-year required program for all freshman men and women. An intramural program involves approximately 50 percent of the students in 14 physical education activities. A physical education major program for men leads to a Bachelor of Science degree in physical education; this year we have 126 men in this program. And now I shall discuss specific techniques used to interpret physical education at the Rice Institute.

During the early part of October, the Physical Education Department sponsors a picnic for all newly appointed faculty members. The new gymnasium with all its modern facilities is the location for this picnic which is served on the sundeck overlooking the indoor swimming pool. This event is scheduled on an evening when the gymnasium is open to students, faculty, and alumni for general recreation; this provides an opportunity for the new faculty members to see facilities and equipment in use and from 8 to 10 physical education activities in progress.

These newly appointed faculty members tour the building with Physical Education Department staff members and learn about the several divisions of the department and the programs offered. They are

usually surprised to learn that we have our own laundry, a self-service basket system, and that nearly all sports clothing and equipment is furnished to each participant. Our department chairman discusses the many values of health and physical education that are inherent in these programs which are available to students, faculty, alumni, and registered guests.

Another program which has brought an unusual amount of good-will and understanding of physical education is the Rice Institute Community program in physical education. This program has two divisions; one division involves the regular school year, while the second forms a summer program in physical education. During the school year, an opportunity is provided for students, faculty, alumni, and registered guests to engage in recreational activities on Tuesday and Thursday evening and Saturday morning. The registered guests represent numerous Houston businesses and professions and are sponsored by an affiliate of the Rice Institute. The summer program comprises recreational swimming and diving lessons.

We make use of special occasions whenever possible to project an understanding of physical education. In 1958 at the Rice Institute — Purdue University football game we demonstrated, during the half-time period, 12 physical education activities which form the nucleus of our service program. While these activities were being demonstrated, I had an opportunity to read over the public address system a 12-minute script on the values of health and physical education. This was an unusually fine opportunity to interpret physical education to 56,000 spectators from the Houston area.

Speaking engagements form another important way of interpreting physical education on our campus. Our staff members have had opportunities to speak on physical education at the Rice Institute Historical society, the all-college student forum, the all-college lecture series, and the student-college system lecture series. And we shall soon have an opportunity to present a thirty-minute television program on physical education at the Rice Institute over a Houston television channel. On informal occasions, we make a special effort to associate with other faculty at buffet dinners, coffee hours, college dances, picnics, the faculty Gilbert and Sullivan Society, and many other faculty functions.

Several of our staff members are engaged in writing and research. Mr. Hermance (department chairman) and I will write a short history of the Rice Institute Physical Education Department for the Spring issue of our alumni magazine. This will provide a fine opportunity to interpret our program to this group.

Our department staff attempts to crush the stereotype of the physical education teacher in sweat shirt and tennis shoes. While teaching physical education classes, they wear white pants and a grey T-shirt lettered for an instructor at the Rice Institute. Whenever our staff members attend functions in other areas of the campus, they wear a white shirt, tie, and suit or sport jacket. Each Wednesday noon our staff holds a business-luncheon meeting at the faculty club; this is an

important step in getting the faculty to associate our staff with the total academic faculty. Three of our staff join other department faculty for lunch at the faculty club nearly every day. Last year one of our staff served as President of the Faculty Club and this year one of our staff is serving as secretary and member of the board of directors.

In addition to the techniques that I have discussed, we use numerous techniques that are practiced in a great many colleges to gain a more favorable feeling toward our program. Included among these is the program for faculty children, a series of bulletin boards with appropriate current materials, and the handling of student and faculty picnics, parties, dances, and recreational events.

And now let us take a closer look at the national scene in physical education. Why is it so difficult to interpret physical education correctly? This question poses two major difficulties that have not been corrected in recent years. First, physical education and athletics are thought of as one and the same program so that the layman too often thinks of a varsity team sport as a whole physical education program. And secondly, there is a lack of an understanding of the values of health and physical education and what constitutes a sound educational program in health and physical education from the elementary school through the college level. To interpret our profession correctly, we must consolidate our position, bring about a unified approach from our members, and stress the essentials in health and physical education that form the foundation of our profession. We will now take a look at these essentials.

Health and physical education programs resemble a talented actor who has struggled along for years with very little recognition until he suddenly appears in an outstanding production. Then everyone appreciates the new talent which has been there all the time needing only an opportunity to declare itself.

The necessary opportunities that health and physical education needed are now appearing again on the American scene. They are moving in from a number of directions with the American Medical Association and the Russian space program leading the way. Thus Dr. Paul Dudley White, internationally famous cardiologist, has stressed the need for improvements in health and physical education programs with emphasis on proper physical exercise as essential to total fitness at any age. Dr. White stated that "it is well to establish a regular habit in some form of exercise and to maintain it through thick and thin. One should regard exercise just as essential to good health as eating, sleeping, and walking". This view made national headlines when Dr. White's stern measures insured carefully regulated exercise during the recovery period for President Eisenhower following his heart attack.

The emphasis that was placed on physical fitness stirred the emotions of the American people and resulted in the appointment by President Eisenhower of Dr. Shane MacCarthy to supervise physical fitness. During the ensuing months interest mounted in this area of physical fitness; all the agencies and people who were even remotely connected with physical fitness seized this opportunity to gain recognition.

Even in France an unprecedented move was made toward physical fitness for all students. At the beginning of this school year, French parents received a letter stating that "your children take part in absorbing, fatiguing, intellectual work which it is necessary to compensate for; this year tests in physical education have been made mandatory for all those who want to take a baccalaureate."

President Eisenhower and Senator Lyndon Johnson became examples of how physical inefficiency could strike down national leaders. And the Kraus-Webber tests became a symbol of a new era in physical fitness; state and national physical fitness conferences were scheduled, and it soon became apparent to physical fitness specialists that we could catch up with the Russians by requiring a high degree of physical fitness for everyone in our society. But after major advancements in the Russian space program, it suddenly occurred to the scientists of America that we could surpass the Russians with this same degree of emphasis on science and technology. A considerable degree of confusion then developed about the content of education programs, and we now find disagreement at every turn concerning the education curriculum.

We must not be misled by the glittering generality that physical fitness, science, and technology are panaceas for all ills. Physical fitness appears on the stage during periods of national and international crisis, while periods of peace with leisure time bring major sports and games spectacles that draw millions of people to watch the performance of gifted athletes. We must reflect and evaluate carefully the education program and adhere to the old maxim that anything that is worth doing at all is worth doing well. A rational approach to sound educational values will, in the long run, bring about an education program that will prepare students to meet future commitments.

Too frequently, education is considered a means of meeting an immediate crisis with the result that measures may be introduced into the education curriculum that prove unsound. This approach diverts attention from the real values of education. Regardless of the crisis that come about, education programs must stress the fundamental disciplines — well-taught and fully mastered. Teachers of health and physical education must seek to stimulate that insatiable curiosity which students display in their search for knowledge and understanding.

As we stress the place of physical fitness in present-day America, we must keep in proper perspective the total contributions of health and physical education and realize that physical fitness is but one of its many contributions to education. The complete human being, not physical fitness or sports and games, is the first responsibility of the health and physical education teacher. Physical fitness and sports and games acquire significance only as the mind, emotions, and human body form a complete action. And the program of health and physical education must be educationally sound and wholesome and meet the age, need, and interest requirements of those involved. The individual as a complete person is essential to any and all human activity.

This approach to education through physical movement needs no

apology or justification. The actions of the human body are the physical manifestations of the mind, emotions, thoughts, and feelings. It is this physical self a person presents to those whom he encounters. Through physical movements, he expresses the thinking and actions which make him unique; and the very act of movement modifies and affects his thinking. An integral part of this educational approach is to teach physiologically sound movement patterns and build them into complex avenues of expression so essential in performing activities in the home, in the professions and vocations, and in leisure time pursuits.

It seems apparent at this time that our society will continue to be shaped by science and technology, which will almost certainly bring a more sedentary type of life with more leisure time. This means that health and physical education teachers will have an even greater responsibility to each student. For health and physical education has inherent educational values that can transform the mental, physical, emotional, and social qualities of an individual to approach more closely the ideal of the educated man. Among these educational values that we must interpret correctly is an understanding and respect for the human body as a means of expression; the development of the fundamental skills of movement so necessary in all daily activities; essential contributions to the physiological development of the human body; an understanding and knowledge of the care needed by the human body to enable it to function at peak efficiency; the development of interests and playing skills in a variety of wholesome leisure time activities; and the realization that health and physical education is one of the best avenues of education leading to group understanding and cooperation.

It is a hard rule of the twentieth-century, and possibly a healthy one, that no sound program of health and physical education is ever carried out without meeting and overcoming endless obstacles that come up to try the skill of the teacher's hand, the quality of his courage, and the endurance of his faith. But we should always keep in mind, during the periods of educational controversy, that we might as well set out deliberately to limit the growth and development of children and youth as to limit the development of educationally sound programs of health and physical education.

CRITERIA FOR ADMINISTRATION OF THE PUBLIC RELATIONS PROGRAM IN PHYSICAL EDUCATION

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This paper is a summary of the final section of a study undertaken in an effort to establish criteria for administration of physical education in colleges and universities by which to evaluate the administrator's effectiveness in the areas of (1) personnel administration,

(2) administration of the basic program of physical education, (3) administration of the budget, (4) administration of facilities and equipment, (5) administration of a public relations program.¹

The need for planned action in the field of public relations is probably greater today than ever before in the history of education. The term "publicity", which prevailed until the turn of the century, is now recognized as insufficient to fulfill the communications responsibility of education to the several publics. Public relations has a much broader connotation than publicity, for it is not entrusted to a small, more or less autonomous staff, but includes all members of the educational team—faculty, students, administration, noncertificated personnel, parents, and others. This is not to imply that departments of physical education—or any other department, for that matter—should embark upon its own, independent program of public relations. Most colleges and universities employ a person who keeps the public informed about school matters, and cooperation with this individual is imperative. Nevertheless, there are certain vital questions to which the average taxpayer could not give satisfactory answers, yet the department expects his cooperation and support. Williams, Brownell, and Vernier give some examples:

...Why are health examinations indispensable?... Are textbooks needed for health teaching? Is physical education concerned primarily with giving boys and girls a "workout" or are there other and more significant values to be obtained?

These authors then point out:

The qualified health educator or physical educator knows the answers to these questions but the general public...does not. The people must know what those in charge of the department are doing to make the program as effective as possible....²

Without such knowledge, there appears to be an inclination on the part of some laymen to regard new developments in education as "fads" and "frills."

The relatively simple curriculum of a half-century ago has assumed new proportions, and educators increasingly find themselves faced with the problem of interpreting to the several publics new developments, the details and values of which they themselves are not fully cognizant. The expression "several publics" is used advisedly, for, as Voltmer and Esslinger remark,

¹ Further information may be obtained from the unpublished doctoral dissertation: Ivan Wesley Swisher, "Selected Criteria for the Evaluation of the Administration of College Physical Education" (Los Angeles, University of California at Los Angeles, 1959).

² Williams, Jesse Feiring, et al., The Administration of Health Education and Physical Education (5th ed.; Philadelphia: W. B. Saunders Company, 1958), p. 326.

There is no one public. Formerly, the idea was held that a school or department had relations with a "public." We know that there are many publics differing in size, organization, interests, methods of communication, and systems of control or guidance. Every religious, political, service, social, and professional organization constitutes a public. Every individual is, ordinarily, a member of several publics....

Insofar as physical education is concerned, the important publics are students, parents, other teachers, school administrators....press, radio and television personnel, and representatives of related governmental and social agencies....³

Physical education is faced with the problem of identifying itself in terms of its contributions to the overall educational objectives of the institution. People react to education and physical education in terms of their own experiences and knowledge. They tend to recognize with difficulty the value of the inter-collegiate athletic program, but this very recognition tends to overshadow the identity of the worthwhileness of the physical education program. This, plus the failure of physical educators to concern themselves with emphasizing that the physical education program has very real merits of its own, has resulted in the publics' feeling that physical education is excess baggage in education, a feeling that has been reflected in severe limitation of budget expenditures for expediting the program.

Physical educators have been inclined to remove themselves from association with and participation in the academic organizations within the colleges and universities of which they are a part. This tends to create the feeling that there is lack of interest in cooperating in the efforts of all university personnel to achieve the overall objectives of the institution. Whether or not this is so is moot. Nevertheless, the physical educator's seeming "standoffishness" undoubtedly has affected the academic status of physical education personnel in the education profession. Closer cooperation and active interest in university functions can do much to rectify this situation and present opportunities for mutual understanding and appreciation of the value of the physical education program within the university circle.

Probably the most important group from the standpoint of the physical education public relations program is the student body; first, because students' reactions to physical education have tremendous influence upon the opinions of parents and others of their acquaintance; second, because today's students represent tomorrow's active adult citizens. "The correlation between pupil approval and public approval

³ Voltmer, Edward F. and Esslinger, Arthur A. The Organization and Administration of Physical Education (New York: Appleton-Century-Crofts, Inc., 1958) pp. 428-429.

of physical education is very high."⁴ This implies the importance of the role of the physical education teacher in the overall public relations program. Physical educators acknowledge that much harm has been done to program prestige by the failure of physical education teachers to live up to their responsibilities in their relations, not only with students but with faculty, administration, and noncertificated personnel as well.

Events of national and local scope occurring in the last few decades have given impetus to the recognition of the importance of physical education in the total educational program of modern youth. There is evidence that the wholesome, overall benefits of physical education to students cannot be served by any other agency either inside or outside the institution. This change in attitude toward physical education has evolved in spite of the fact that physical educators agree there has been no concerted, planned, continuous program of public relations for their departments. The values of physical education have been utilized only as emergencies have spurred activity to defend and justify the basic physical education program. This lack of foresight by all physical education departments explains in part the position in which they find themselves in the curriculum planning of universities and colleges: that of always having to defend and justify their program with university administrators and officials.

Administrators of basic programs of physical education have become increasingly aware that much needs to be done to educate students and other publics to understand the nature and purpose of physical education. The necessity to clarify thinking about public relations and the applications of sound principles, acceptable to educators as well as specialists in the field, to the organization of an effective public relations program for physical education is apparent.

Certain criteria were developed for this study in the area of public relations and physical education. This paper contains a summary of the most important criteria as indicated by a select jury of experts.

Administration of General Public Relations Policies

The results of this study indicate that the physical education administrator's major responsibility in the public relations program is to define clearly the aims, objectives, and contributions of the basic program to all publics. In addition, the administrator assures a sound basic program of physical education to meet student needs, based upon an orientation program enlightening them as to the aims and objectives of the activities offered. Moreover, the administrator establishes efficient channels of communication with public relations experts of the

⁴ Voltmer and Esslinger, The Organization and Administration of Physical Education, p. 429.

university based upon mutual understanding and appreciation of the responsibilities of each department to the institution.

Factual reports concerning the basic physical education program seem to be more valuable than "human interest stories" to the administration of a public relations program in physical education.

Emphasis is placed upon the need for presenting to a skeptical or misinformed public factual information concerning the basic program of physical education in a dignified but persuasive manner, keeping in mind that a sound basic program, focused upon student needs, is the foundation upon which an effective public relations program is based.

Administration of the Public Relations Program

In this area of administration the findings point out that one of the administrator's most vital responsibilities is assuming leadership in the conduct of the department's public relations program. In discharging that responsibility he must furnish to university administrators clearly stated departmental annual reports, stressing the values of the basic program of physical education and channeling information concerning it to university public relations officials according to their recommended procedures to assure the most effective use of the information provided. Furthermore, the administrator elicits departmental cooperation and appreciation of good public relations by delegating duties to capable faculty personnel, clearly defining their responsibilities and supplying them with information concerning objectives of the university's total public relations program.

Administration of Faculty Responsibility in the Public Relations Program

Chief in importance is administrative leadership designed to give faculty and other staff personnel a sense of "esprit de corps" and oneness of purpose without scattering central authority. This implies that effective public relations starts within the department itself, not for the purpose of mapping out a suggested program for the university's public relations director but to facilitate changes improving the basic service program which, as already pointed out, serves as the best possible medium for favorable public relations. A further implication is that good faculty-student relationships are essential to an effective public relations program. In short, as Voltmer and Esslinger point out,

...the role of the physical education teacher in the public relations program is accomplished through good human relations. The value of tact, courtesy, and friendliness toward all with whom he comes into contact cannot be overestimated. A dedication to the welfare of all students is essential.⁵

⁵ Voltmer and Esslinger, The Organization and Administration of Physical Education, p. 436.

In order to facilitate this goal the emphasis is placed upon the necessity for a continuous survey by the physical education department which assures accumulation of all pertinent information for public relations. This requires a program of public relations having specific purposes discussed and approved by all members of the faculty.

SUMMARY

All proposed criteria included in the major administrative area of public relations were considered by the jury of experts as significant and acceptable as important criteria. This paper refers to only a few of these.

In the subdivision, Administration of General Public Relations Policies, they are:

The fact that adults have many erroneous impressions of physical education emphasizes the need for public relations in this area.

A sound basic program of physical education forms the best foundation for public relations in this area.

Success in public relations planning means treating topics honestly, fairly, and avoiding exaggeration.

Good public relations keeps the students as its focus against the background of their needs.

A program of public relations requires effective channels of communication among all members of the education profession.

A public relations program requires dignity, aggressiveness, and presentation of factual information.

In the subdivision, Administration of the Program of Public Relations, the following are important criteria:

The administrator's annual report to university administrative officials constitutes one avenue of public relations.

The administrator understands clearly the public relations organization of the college or university.

Sound administrative practice includes delegating duties in terms of functions and jobs to be done.

The administrator's role involves providing leadership and gearing departmental policy to good public relations.

So far as Administration of Faculty Responsibility in the Program of Public Relations is concerned, the jury of experts believe the most valuable criteria to be:

An esprit de corps, radiating high professional ethics within the department, affects public attitudes toward physical education.

Every faculty member shares responsibility for the program, but central authority resides with the administrator.

Effective public relations start within the department to facilitate changes improving the basic service program.

A good public relations program requires the team effort of the faculty, staff, and administration.

Faculty-pupil relationships constitute a major factor in the public relations program.

THE ATYPICAL IN A HOSPITAL PROGRAM

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Handling the atypical in our institution is always an interesting and challenging one. The combined efforts, like most programs, are the essential parts of our rehabilitation approach for the completion of the total treatment effect afforded a patient in need of Physical Medicine and Rehabilitation. Specifically, Physical Medicine and Rehabilitation Therapy is designed to restore function to the maximum level of which the patient is capable. Also to evaluate the degree of impairment and the extent of residual capacity for social and economic activities and to furnish practical and effective motivation for rehabilitation.

Physical Therapy, on medical prescription, is concerned with the prevention of deformity, treatment of disease, injury, and the disability and functional rehabilitation by means of therapeutic exercise, scientific massage, self-care activities, heat, cold, light, water, electricity and certain accredited methods of manual or electrical diagnostic and prognostic tests and measurements.

In a broad sense, Physical Therapy may also be considered to include therapeutic teaching, as it is usually necessary to instruct patients and/or family in the use of prosthetic and orthopedic appliances, in therapeutic exercises, and in other home treatment methods.

Some of the atypical handicaps entering our hospitals with their intended goals of rehabilitation to plateau and looking to the future of the possibility of entering college, special training, or work within the limitation of their handicaps are: amputees, asthmatics, paraplegics, stroke patients, and other injuries too numerous to mention. Through the team effort, each patient is given the best of care and the advantage of each and every needed qualified therapist to assist in his Rehabilitation Program.

To break down some of the above mentioned disabilities in giving a more specific coverage of our program, let us for example, discuss briefly the asthmatics.

The respiratory exercises for the Chronic Pulmonary Emphysema, referred to as reverse breathing, has been a great help to many such patients prescribed into Physical Therapy. The reference to this exercise can be found in the Bulletin of Johns Hopkins Hospital, Volume 92, No. 3, March, 1953, "Respiratory Exercise for Chronic Emphysema." Factors to be considered in training such patients are: severity of disease, degree of disability, and the cooperation, reduced mental development, emotional instability and apprehension of the patient. The therapist, endeavoring to handle such a problem, must be a firm enthusiastic believer in this program and establish a satisfactory rapport

with the patient. The use of a mirror and possible use of a tissue to give visual affect of breathing, are the only aids necessary. With patients, the simplest means of explanation, and above all no discouragement by letting the patient feel that he is a difficult problem, will lead to a very effective treatment and a relief from respiratory embarrassment.

The amputee is another of our atypical types of disabilities, whether it is of an upper or lower extremity. This type of trauma results in the loss of one or more of the extremities.

The fitting of an artificial limb encompasses more than just the surgical procedure. Many detailed procedures go into the proper fitting of prosthetic devices. The patient must be cognizant of the biomechanics, skin hygiene, pain, and the phantom sensations that are experienced. As therapists, we must be alert to the psychological aspects and the necessity for physical, social and occupational adjustment of the patient. Therefore, amputee management must be considered as a dynamic, continuous process which begins at the time of amputation and continues until the patient has achieved maximal functional use of his prosthesis and is able to perform the activities essential for daily living and gainful employment.

Let us briefly go through the training that is necessary for patients with spinal cord injuries. Rehabilitation, together with antibiotics and surgery, has given the patients with spinal cord injuries an opportunity for a longer and better life. The most important therapeutic tool in rehabilitation is exercise. Malnutrition, muscle atrophy, osteoporosis, urinary infection, urinary stones, soft tissue ossification, contractures and decubitus ulcers are complications which occur during this early period and which may result in prolonged ill health and may act as barriers to rehabilitation. Exercise is of the upmost importance in overcoming or minimizing these complications.

Daily strengthening exercises for the upper extremity are essential and assist later on for bracing and crutch walking. Ranges of motion daily, especially in the lower extremity, are important besides the thorough training of self-care, such as: turning, getting in and out of bed, rolling over, learning to care for body needs, braces, and the handling of a wheelchair. If ambulatory: proper gait training, use of crutches, up and down stairs, getting into and out of wheelchair and cars, and falling and getting up are necessary skills. The above are some of the obstacles patients with spinal cord injuries are confronted with and he must be trained to be able to adapt himself to his ever present handicap.

My fourth topic to be discussed which is handled by our Physical Therapy Department is thoracic surgery patients. This type of patient needs a great deal of personal attention. The management of these thoracic surgery patients, of the tubercular and non-tubercular origin, deals with surgery, healing, restoration of function, and the detection, identification and prevention of deformity. It is also important to consider the patient's psychological reaction to his surgery and illness and his eventual return to everyday life. The objectives of Physical

therapy are: (1) to prevent deformity of trunk and upper extremity, (2) to aid in re-expansion of the lung when indicated, (3) to maintain and restore normal range of motion and muscle strength of the shoulder and trunk, (4) to improve general posture, (5) to prevent a fixed tight chest by gaining the maximum vital capacity that the surgery employed will permit, and (6) to prevent a "Chest Cripple."

The above objectives are accomplished through therapeutic exercise and postural training. Also other forms of physical therapy, such as thermo-therapy, ultraviolet, diathermy and hot packs have been of great benefit in conjunction with the exercise program prescribed, individually, for each patient.

Post-operative posture and muscle re-examinations are done to evaluate and determine the specific muscle functions and powers, which through surgical procedures, are weakened and will necessitate detailed muscle re-education. It may be well to remember that a routine group of exercises does not necessarily correct muscle imbalance and weakness and imbalance varies with the individual case; for example, in the post-thoracoplasty patient. There will be certain skeletal changes as a result of the surgery, as well as severely traumatized muscles, due to the extensive division of other muscles during surgical techniques. These problems present a definite challenge to the therapist in the program for the maintenance and correction of posture and muscle re-education within the physical limitation and medical condition of the individual patient.

Realizing that the types of patients we have briefly discussed, would in most cases, be seen in schools only after they have had therapy and proper training, it is felt that this is when the physical education program could be of great assistance to these patients, by a continued watchful eye and a general body conditioning program to help them maintain the rehabilitated state they have spent so many months trying to achieve.

I am sure that with the close coordination between the doctor and the physical therapy services provided in your areas, that a well organized rehabilitation program can be maintained in your Physical Education Department designed to help those deserving students maintain not only good scholastic standing, but remain physically well and emotionally well balanced in their future years.

ADAPTING THE PHYSICAL EDUCATION PROGRAM TO THE ATYPICAL

SAM NEWBERG
Indiana University

The scope of the Adapted Program lies within the framework of the Basic Instructional Service Program. Since each freshman student is required to participate in physical education, the Department of

Physical Education at Indiana University has the responsibility of providing activities for all students.

Briefly, by taking you through the various steps of the atypical student, from admission to the assignment of the class, you will see the Adapted Physical Education Program in action.

MEDICAL EXAMINATION

All new students are required to take medical examinations and these examinations are forwarded to the University Health Center for study. Any student whose condition is such that it warrants a medical re-check, is notified by a card to report to the Health Center for a conference prior to enrolling at the University. In attendance at this conference are the student, physician and the adapted physical education instructor.

The discussion centers around the evaluation of the student's medical findings in terms of participation in physical education. The adapted program is fully explained in light of his limitations and capacities. The student is encouraged to feel that there is an understanding and a desire to help him by means of program control and the objectives set forth for a good experience in physical education. By mutual consent, he enrolls in the proper area.

There are three phases of the Adapted Physical Education Program: namely, Special Conditioning, Selected Activities, and Sports Appreciation.

SPECIAL CONDITIONING

At the beginning of each semester a clinic is held in the special conditioning class, whereby each atypical student is interviewed by a vested interest-group. This group includes a surgeon, the University medical director, a physical therapist and the adapted physical educator. Through this informal procedure, the best means of improving functional conditions are established. Included also, are controls for protecting the condition from aggravation. At the next class meeting, the instructor holds individual conferences, and the prescribed exercises are presented and measurements and/or tests are made and recorded. Periodically, thereafter, the students are re-evaluated and, when necessary, medical assistance asked either by the instructor or student. Whenever feasible, atypical students are re-assigned from special conditioning classes to selected activities or the regular program.

An example of the types of conditions assigned to this program are orthopedic deviations, functional postural divergencies, nutritional problems, and neurological problems.

SELECTED ACTIVITIES

There are many atypical students whose conditions are not amenable to correction, but must be guided into activities which are within the range as set forth by the physician. Through a recognition of the offerings in the general program as to the severity of each activity, each student selects an activity based on his interests and desires for the activity. It is kept in mind that he understands his condition thoroughly and recognizes what he can and cannot do in that activity. The instructor of the selected activity is notified as to the student's condition, his objectives, and program controls. Insofar as possible, the atypical student participates with the normal students as if he had no handicap.

Some of the deviations involved in the selected activities are heart histories, diabetes, epilepsy, allergies, eye and hearing problems, structural deviations, orthopedic disturbances and others.

SPORTS APPRECIATION

Only those students who cannot actively participate in activities due to temporary or permanent disabilities are guided into a Sports Appreciation class. Those with pre-operation problems, severe dermatitis, post-operational conditions, severe cardiacs, and severe paralysis are some examples.

In this program, the course centers around current collegiate sports. Films of games are shown, varsity coaches lecture on their specialties, and watching various varsity sports in action is encouraged.

ADAPTED PHYSICAL RECORD FOLDER

On the outside of the folder are spaces for:

- Description of Condition
- Cause
- Previous Treatment
- Clinical Examinations
- Program Objectives
- Program Contraindications

On the left inside portion of the folder are listed the activities offered during the year and spaces are available for the names of the instructors teaching the specific courses.

On the right inside portion of the folder are columned areas with the headings:

- Body Part Involved
- Exercise Program
- Evaluation
- Progress

The tab of the folder runs the entire length and includes spaces for the student's name, date of birth, age, campus and home addresses, telephone numbers, educational objective, and schedule of activities.

On the back side of the folder are spaces for comments and recommendations.

The Adapted Physical Education Program is not only a great aid to the student, but also a feeling of personal satisfaction for the instructor when any of these students are able eventually to participate in the regular physical education programs.

PHYSICAL EDUCATION FOR THE ATYPICAL STUDENTS AT THE UNIVERSITY OF ILLINOIS

ROBERT E. SHELTON
University of Illinois

That phase of physical education dealing with the ameliorative problems of students with physical disabilities at the University of Illinois is more generally known as Prescribed Exercises (Physical Education for Men 101-104). A similar program is administered in the Department for Women and is titled "Modified Physical Education Program." In many colleges the term Adapted Sports is used as the general designation. Since there is a four-semester requirement of compulsory physical education, the numbers 101-104 run concurrently.

This program of special physical education is a part of the required or "Basic Instruction Program." The students participating receive the same amount of credit as those in the regular Basic Instruction Program (1 unit). The administration of the Prescribed Exercise Program is under specific medical supervision of an appointed physician from the University Health Service. A full-time supervisor from the faculty of physical education is responsible for its direction. A staff of quarter-time graduate assistants is employed as instructors for these classes. The method of selection of the instructors is based on their qualifications, interests, and desire of experience in this area of teaching. The number of assistants attached to the prescribed exercise staff each semester depends on the student load. It will vary each semester from 14 to 17 instructors, depending upon the number of sections necessary to handle the initial enrollment. As part of the undergraduate professional training in the major physical education courses dealing with this area (Theory and Practice of Prescribing Exercise), each student is required to serve as an assistant instructor in one of the prescribed exercise classes for one hour of credit. He is required to keep records and make reports of all cases in class as to histories, diagnoses, treatment and prognoses of students' physicians.

All students enrolled in the Prescribed Exercise Program are personally assigned by written authorization of the supervising physician as to area of participation and specific medical indications. The total

enrollment in this program is comprised of initial assignments from the Health Service at the beginning of the semester and the transfers throughout the semester from the regular program. The latter group is composed of students unable to continue regular physical education due to some injury, illness or organic disturbance.

The "Prescribed Exercise Program" embodies two phases of Physical Rehabilitation.

1. Individual Exercise Therapy, for students with disabilities, presenting possibilities of amelioration. Specific exercise routines are devised and administered individually to each student on an individual prescription basis. Written instructions and directions are tabulated and progressive records are kept on each case. Mimeographed forms of exercise routines with specific instructions as to execution are used wherever possible.

2. Adapted Sports for students with disabilities of an organic nature or those not amenable by exercise. In the adapted sports area the student is given an opportunity of participating or attempting as many types or variations of sports as his disability will permit. Specific effort is directed toward individual instructions and encouragement for participation. Problems of socialization and personality affections are given particular consideration and references are made to the physician for further consideration.

The class schedule for the Prescribed Exercise Program is on a two and three-day-a-week basis, with one-half hour each day for three-day-a-week schedule and forty-five minutes each day for the two-day-a-week sequence. A special exercise therapy clinic with adequate facilities and equipment is available for the exercise therapy aspect of the program. Full gymnasium facilities in the same locality are available to the adapted sports program. Although there are no special swimming facilities available for the adapted classes, individual arrangements are made with the swimming program in the Basic Instruction Program to handle any specific cases necessary. Prescribed swimming for water resistance exercises as an amelioration is not feasible due to crowded swimming schedules and locations of swimming pools.

At the end of each semester the students in the Prescribed Areas are interviewed and re-examined by the medical supervisor. The student's status in physical education is established by a joint conference of the medical supervisor and the program supervisor on the basis of physical findings and evaluations of progress made during the semester. Guidance cards are made for each student returning to school (until requirement of four semesters has been met) and appropriate assignments are initialed and signed by the medical supervisor. These guidance cards are filed with the registration office to be used for future enrollment. He may be returned to the Basic Instruction Program with unlimited choice of sports participation; or on a limited basis indicated by medical supervisor's signature; or returned to the Prescribed

Exercise Program for either exercise therapy and/or adapted sports assignments.

The total enrollment in prescribed exercise will vary each semester according to the general enrollment in the Basic Instruction Program. Over the past ten years the total enrollment has varied from 7 per cent to 10 per cent of all students registered in basic instruction classes. The total will average from 300 to 500 students each semester. The types of disabilities are largely orthopedic in nature, with a variety of associated neurological disturbances, organic manifestations, and post surgical conditions. Follow-up therapy and adapted sports are offered to the students beyond the required four semesters if it is medically necessary, and elective credit is given for each semester the student wishes to elect this participation.

Utilizing the same facilities as the Prescribed Exercise Program, therapeutic exercise services are extended students, without credit, in an "Outpatient Therapy Clinic." This clinic is sponsored by the University of Illinois College of Physical Education. The Outpatient Clinic is open to faculty, nonacademic personnel, students not taking physical education for credit, townspeople and patients from outlying communities. All treatments in the Clinic are authorized on written prescription by a practicing physician recognized by their County Medical Societies. Progress records are kept and patients referred back to the physician at regular intervals for evaluation, further prescription, or discharge. All treatments given in the Clinic are concerned only with ameliorative exercise and active motion (Kinesiotherapy). These involve muscle reeducation, strengthening, flexibility, joint range of motion, endurance, postural correction, crutch walking, amputee prosthetic and gait training, and other general physical rehabilitation for post medical and surgical cases.

The Therapeutic Exercise Clinic for outpatients has been in operation since the beginning of the Second Semester 1950-51. Outpatient registration began in October 1951, with a daily log and records made as to progress and attendance. A total of 2,626 patients have received 40,946 treatments in the Clinic since the log was established. Treatments are given free of charge to both male and female patients and ages range from two years to 80 years. Approximately 65 physicians have prescribed patients to this Clinic since its beginning.

A Statistical Summary of Prescribed Exercise and Exercise Therapy Clinic

Prescribed Exercise (PEM 101-4). During the two semesters of the year 1958-59 the area of the Basic Instruction Program in Physical Education, dealing with the students medically excused by the Health

Service, attended the needs of 493 students. Of this number 227 were given ameliorative exercises and adapted sports in the Exercise Therapy Clinic, 185 were given temporary transfers to specific basic instruction classes on a limited basis, and 81 were given special consideration in the Student Rehabilitation Division.

This program was conducted by a supervisor, eleven part-time graduate student instructors, and 20 undergraduate student assistants doing clinical work as part of the PEM 208 class "Theory of Prescribing Exercise."

Outpatient Clinic. During the summer of 1958 and the two semesters of the year 1958-59 a total of 301 patients (not counting the Prescribed Exercise Program) received treatments in the Therapeutic Exercise Clinic. These patients participated in the program from one treatment per week to six treatments per week. The average treatments were administered on a three-day-a-week schedule, from 3-6 on Monday, Wednesday, and Friday. A total of 6,481 treatments were administered to this number of patients during the two semesters and summer school. There was an average of 60 patients reporting to the clinic three times weekly. These patients were referred by private physicians of this community, surrounding localities, and other parts of the state, as well as the staff of the University Health Center.

Professional Training in Therapeutic Exercise. During the summer semester of 1958 and the two semesters of 1958-59 a total of 34 graduate students, majoring in physical education, participated as student therapists as the clinical part of their course (PEM 408, Kinesiotherapy). These students were required to spend 48 hours each in the Clinic during each semester. These two courses (Theory of Prescribing Exercise and Kinesiotherapy) satisfy the Civil Service requirement for employment as a Corrective Therapist in the Veteran's Administration hospitals. Since the approval of the Veteran's Administration for experience in this Clinic, approximately 100 students have been employed in their service.

A study is being made concerning the need of services in this area in the elementary and secondary levels. The results of this study will be used in organizing a specific curriculum in the Department of Physical Education, with specific objectives of training people for this field. The curriculum has been in the process of evaluation for the past three years.

Intramural Athletics

A SURVEY OF THE ADMINISTRATION OF INTRAMURAL SPORTS PROGRAMS FOR MEN IN SELECTED COLLEGES AND UNIVERSITIES IN NORTH AND SOUTH AMERICA

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University of Michigan

The purpose of this study was to ascertain the present status of Intramural Sports Programs in selected colleges and universities in the United States, Canada, and Latin America. An analysis was made of the programs of these educational institutions in the major areas of philosophy and objectives; program evaluation; organization and administration; and program and facilities including: activities offered, eligibility, instruction, facilities, co-recreation, extramural participation, awards, health and safety, protests, officiating, and publicity.

The study was limited to men's intramural programs in the selected colleges and universities in North and South America. Institutions selected from the United States were those which were represented at the National Intramural Conference. Colleges and universities selected from Canada represented a wide geographical distribution including all of the provinces of the country with the exception of Newfoundland. Those selected in Latin America included universities representing each of the Latin American Republics.

Questionnaires were sent out to seventy-two colleges and universities in the United States, ten in Canada, and nineteen in Latin America. Sixty-seven colleges returned completed questionnaires from the United States, nine from Canada, and two from South America. Forty of the forty-nine states in the United States were represented in the study as were nine of the ten provinces of Canada and two of the South American Republics. A summary of the results of the study are as follows:

Philosophy and Objectives

Written Philosophy. It was revealed that fifty-eight of the sixty-five schools studied in the United States and eight of the nine schools in Canada have their departmental philosophy formulated in writing in a handbook or similar publication.

Policies and practices. There appears to be a divergence of opinion on certain intramural policies and practices. Directors are agreed almost completely or to a great degree that intramural athletics should adhere to the following principles:

1. They should be voluntary in nature.
2. They should be governed by democratic principles which are fairly administered.
3. They should be a part of the college physical education program.
4. They should be financed by the general college budget.

In addition, they should meet the following education objectives:

1. Provide opportunity for the making of friends and for good fellowship.
2. Develop group loyalties.
3. Provide healthful exercise.
4. Promote leisure education.
5. Allow for freedom of choice and equality of opportunity for participation in activities offered.
6. Allow students responsibility for sharing in the planning of the intramural program.
7. Contribute to good mental and physical health.
8. Contribute to improved social adjustment and attitudes.

Directors agree only to a moderate degree or almost not at all that intramural athletics should:

1. Extend beyond athletics and sports and should include physical and recreational type activities.
2. Provide an area for the development of varsity prospects.
3. Provide instruction in areas not covered in the physical education program.
4. Give students the responsibility for administering and supervising activities in the program.
5. Insure that directors are responsible for providing an intramural program for the academic faculty of their college or university.
6. Promote extramural athletics as a responsibility of the intramural department.
7. Provide a co-recreation program.

Administrative control. The departments of physical education (or athletics and physical education combined) control fifty-five of the sixty-seven schools studied in the United States and eight of the Canadian schools.

Finance. Thirty-three of the sixty-seven schools are supported chiefly through the physical education budget with the general fund accounting for the financing of twenty-three. In Canada four programs are financed by the physical education budget and four by the general university fund. While only twenty-three of the programs studied in the United States are supported by the general fund, thirty-seven directors however indicated favoring this method of financing. All of the schools in Canada and thirty-five of the schools reporting in the United States indicated an operating budget increase during the past five years.

Status of director. Twenty-six schools have a full-time intramural director and forty-one have part-time directors. Of these, eleven have bachelor's degrees, forty-six have master's degrees and eight have doctoral degrees. Fifteen directors are presently carrying on some type of research, and eleven have had a publication in a book, professional journal, or magazine within the past two years.

Additional responsibilities of director. In addition to administering the intramural program, sixty of the sixty-seven directors teach classes in physical education. Twenty-nine coach one or more sports. Two directors are responsible for the administration of the women's intramural program. Another responsibility mentioned was the supervision of other recreational activities on the campus. This was reported by thirty-four of the directors.

In Canada all nine directors teach physical education classes, eight coach one or more sports, and five supervise other recreational activities on campus.

Additional administrative assistants. Of the schools studied, twenty-six have an assistant intramural director with faculty status. Of these, fourteen are reported in the over 7,500 enrollment group. Canada reports three assistant directors. Only twelve schools in the United States and two in Canada report having a full-time secretary; however, fifty-three schools of the sixty-seven and all nine of the Canadian schools have student assistants exclusive of game officials. Other assisting groups include councils or committees, and interested faculty personnel from other departments within the university. Only twenty-three of the schools in the United States reporting show an increase in staff personnel over the past five years. Seven of the Canadian schools have enlarged their staff over the past five years.

Eligibility. Of the schools surveyed, scholastic restrictions on eligibility were indicated by twelve schools in the United States and two in Canada. Forty-nine of the sixty-seven schools in the United States and six of the nine Canadian schools barred varsity team members from intramural competition during the season of the varsity sport. Nineteen schools in the United States and seven in Canada reported varsity letter winners ineligible in those sports in which they were awarded letters. Former professional athletes are barred from competing in the sport (or any closely associated sport) in which they were a professional in sixty of the sixty-seven schools in the United States and five of the nine schools in Canada. Freshman team members are allowed to compete in other intramural sports during the season in which they are on a freshmen team in thirty-eight of the schools surveyed in the United States and four of those surveyed in Canada; and in forty-six of the schools in the United States and seven of the Canadian schools a freshman numeral winner is allowed to compete in the following year in the sport in which he won numerals.

Awards. The giving of awards is a common practice with sixty-one of the sixty-seven schools in the United States and all nine of the Canadian schools reporting such a plan. Medals are given most frequently

as an individual award and trophies most frequently as team awards. Thirty-three of the sixty-seven schools in the United States select all-star teams and thirty-four have a special time and place for presenting awards. Only two of the nine Canadian schools select all-star teams, but eight of the schools have a special time and place for the presentation of their awards.

Health and safety. Forty of the sixty-seven schools require a medical examination prior to intramural participation and thirty-two require practice periods prior to participation in strenuous sports. Accident reports are received from the health service or place of treatment by thirty-seven of the directors, and forty-two of the schools have some type of accident insurance available, either required or optional. Touch football was found to be the sport in which most injuries occurred with forty-five of the colleges listing it first. In Canada six of the nine schools require a medical examination prior to participation, three require practice periods, and five receive accident reports on intramural injuries. All nine schools have some type of insurance available, and the sport in which the most injuries occur is hockey with four reporting it first.

Protests. All but two of the sixty-seven schools in the United States participating in the survey indicated that protests must be submitted in writing, and all but one school require that it be submitted within a particular time limit. Eight schools require that a fee accompany the protest and twenty-seven schools use a committee composed of students and faculty for handling the protests. All of the nine schools in Canada require protests to be submitted in writing within a particular time limit. Two schools in Canada require that a fee accompany a protest, and six of the nine schools use a committee composed of students and faculty to decide upon the protests.

Officiating. While fifty-five of the schools studied in the United States hold training sessions or clinics, only twenty give written examinations to their officials. Officials are rated in twenty of the schools by the participating teams, and nineteen of the schools have the officials rate the sportsmanship of the teams in games they officiate. Fifty-eight of the reporting schools require officials to dress in a distinct type of officiating uniform. Pay for officiating of the various sports ranges from \$.50 to \$2.00 per game with the majority of the schools paying \$1.00. Most schools use two officials per game.

Publicity. The intramural handbook is the chief type of publicity for colleges in both the United States and Canada. Other types that are used extensively include bulletin boards, mimeographed materials, and local and school newspapers.

Program

Activities on program. Eighty-one different intramural activities were mentioned by the sixty-seven schools surveyed in the United States.

Basketball is played by all sixty-seven, closely followed by volleyball, softball, and touch football. Tennis is the leading individual sport with table tennis and golf following in that order. Six schools dropped boxing from their intramural program within the past three years because of possible danger to the participants.

Canadian schools reported a total of forty-five different intramural activities with basketball, volleyball, outdoor track, and hockey the leading team sports and tennis the leading individual sport.

Sports instruction. Twelve, or seventy-five per cent of the schools of over 7,500 male enrollment, offer sports instruction in their program, with only thirteen of the remaining fifty-one smaller colleges offering it also. The primary source of instruction is through the sports club. Five schools in Canada offer sports instruction.

Faculty intramural program. Volleyball is the most popular for faculty members in both the United States and Canada. Thirty of the schools reporting in the United States and three in Canada have a faculty intramural program.

Extramural athletics. The sport-club idea, with clubs from one college playing clubs from another college, is the most popular form of extramurals. Of the sixty-seven colleges studied, twenty have extramural programs, as do four of the nine Canadian schools. Time, facilities, and finance are the major deterrents to more extramurals.

Program evaluation. The most frequently mentioned method of program evaluation was that of observation, both scheduled and informal. Other methods used by many schools include written questionnaires, staff meetings and the yearly administrative program report.

Facilities

Lighted playing fields. Seventeen of the schools surveyed in the United States and two in the Canadian schools use lighted playing fields with touch football and softball the main sports played under lights.

Community use of facilities. When it does not interfere with their programs, thirty-six of the schools surveyed in the United States and four of the schools in Canada allow the use of their facilities for community groups.

Sunday use of facilities. Very few schools schedule intramural activities on Sunday, but thirty of the schools studied in the United States and two of the Canadian schools allow the use of their outdoor facilities for free play activities.

Increase in facilities. Twenty-eight of the schools in the United States answering the questionnaire reported an increase in facilities within the past five years, and forty schools have plans for additional facilities within the next five years, including three intramural buildings. In Canada, all nine schools have plans for additional facilities within five years, with eight of the nine schools reporting increases within the past five years.

Status of facilities. Only five of the sixty-seven directors replying in the United States and none of the nine Canadian directors classified their facilities as excellent. Nine directors in the United States and five in Canada rated their facilities as poor.

Conclusions

Results of this study indicate that the overall developmental picture of intramural sports programs in the schools studied has shown very little progress since the last definitive study by Means in 1948. Only a few programs have accepted what appears to be a newer concept in the administration of intramural sports programs which encompasses recreational activities.

Although the highly competitive team and individual games still remain as the "core" of the intramural program, the newer concept includes activities of a more recreational nature, providing for individual differences and interests, and encompassing outing activities, social activities, and creative activities.

An extension of this philosophy would provide for an expansion in the area of extramurals in order to meet the needs and interests of some of the students who are not adequately provided for by the regular intramural, physical education, or intercollegiate program. Leadership, facilities, and finances, where possible, should be made available, not at the expense of the intramural program, but as an extension of it.

Additionally, there is a need for a greater emphasis on faculty recreation in the intramural program. Staff, facilities, and equipment should be available to aid in the promotion of faculty participation. While the first obligation is to the students, the recreational needs of the faculty should be met.

While it would appear that many intramural directors would like to extend their present program in this direction, a number of social influences appear to have had a delaying or retarding effect on this program extension. Chief among these has been the apparent failure of most intramural departments to obtain financial support commensurate with increasing enrollments and the rising cost of materials and services. Adding to this it would appear that many intramural directors are "bogged down" with administrative and program detail resulting in a neglect of the areas of public relations, program evaluation, and research.

Other areas in which there appears a need for greater emphasis are as follows:

1. In the area of co-recreation, the responsibility for the administration of the program should be jointly shared between the men's and women's intramural departments.
2. In the area of finance greater attention should be given to the increasing costs of maintaining and improving intramural programs.
3. A need is apparent for closer cooperation between the intra-

mural department and health service with greater attention by intramural directors to policies and procedures with respect to medical and health examinations, safety, first aid, and accident reports and records.

4. Directors do not appear to be giving enough attention to planning and interpreting an extensive program of public relations with students, faculty, alumni, administration, and community. Special attention should be given to coordinating the intramural program with related campus programs such as the student union, physical education, recreation, and varsity athletics.
5. Few schools are carrying on a continuous program of evaluation in all aspects of the intramural program. The best available evaluative techniques and the latest research findings should be used in the evaluating process.

HUMAN RELATIONS IN THE ADMINISTRATION OF AN INTRAMURAL SPORTS PROGRAM

GEORGE W. HANIFORD
Purdue University

The successful intramural director is one who understands and knows how to use the techniques of human relations. These techniques are closely inter-woven and it is sometimes difficult to determine where one begins and another ends. An administrator must first be extremely interested in living the "golden rule" in all of his associations before he can effectively utilize any or all of the techniques. Self-assurance through self improvement plus a belief in the worth of others, together with respect for the wishes and feelings of others, combine to form satisfactory human relations.

The impressions that we make and the effects of these impressions on ourselves and the individuals within the various publics with whom we work judge the effectiveness of our human relations. The intramural director in administering the program serves primarily two categories of publics. They are the internal public and the participating public. The internal public is composed of the individuals within the organization with whom he works, while the participating public includes all who take part in the program. The individuals within each public have attitudes toward and opinions of the program and its leadership. It is important for the director to realize that the publics form their current attitudes from what is being done or not being done in the program and its administration. In exchanging information for the purpose of extending understanding one must remember that an impression, view, or inference can change and does change in response to new stimulus presented to its holder.

Staff harmony within the internal public must be based upon a sound foundation. There should exist a faith in the ability and value of each staff

member. Also, consideration must be given for the wishes and feelings of individuals involved in a decision or action. The building of a sound human relations foundation is the responsibility of the director. He must recognize that in successful administration it is sometimes the little things that count. It is important to learn to say "Thank you," "I'm proud of you," and "Please." Additional techniques of human relations applicable for the internal public include: (1) the asking of questions to win cooperation; (2) a confident bearing to help control others; (3) earnestness to arouse enthusiasm; (4) friendliness to overcome opposition; (5) harnessing criticism in a way to win appreciation; and, (6) increasing other's self-esteem to boost loyalty.

All persons have the same basic desires and their resultant patterns of action are their best known methods of attempting to satisfy these desires. "Man does not live by bread alone" is a principle that should be remembered by all administrators. All of us respond to the opinion of our fellows, and to many of us the desire for distinction is greater than the monetary attraction. If our colleagues respect, and are loyal to the department, this spirit and attitude will be reflected in the opinions of the other publics which we serve.

The intramural director is the head of a service department, one designed to offer all members of the participating public opportunities to engage in wholesome recreational activities of their own free choice. The establishment of satisfactory human relations between the staff of the department and the members of the participating public is also dependent upon the little things — what we say, what we do, what we think — the prompt and courteous services, the willing cooperation, the friendly greeting, the warm and ready smile and the thank you. These are the things that count and they come from a background of good manners, cordiality, and efficient office practices.

The day is here, when an act of courtesy, extra service, or a little more consideration to those we serve, will influence the acceptance of our services.

Building good human relations, in the administration of an intramural sports program, isn't a complicated process — in fact, it's rather simple. All you have to do is get into the habit of doing your job the best way you can and give your fellow employees and the students all the help they need in the way you know is right.

A STUDY OF BUDGETS, OFFICIALS AND ACTIVITIES IN INTRAMURAL PROGRAMS FOR COLLEGES AND UNIVERSITIES

GLEN E. GALLIGAN
Washington State University

The intramural staff of Washington State University has been studying various phases of budgeting, officiating and the activities in its intramural program, to see where improvements might be made.

The staff felt that help might be obtained by finding what other institutions were doing in this regard. Consequently, two studies have been conducted.

In March 1958, a study was made in eighty-three universities and colleges of the United States with enrollments of 1500 to 4500 men. In November 1959, a similar study was conducted in thirty-seven institutions belonging to the Western College Men's Physical Education Society in an attempt to get more information on certain questions.

The institutions were asked for information concerning the following: activities comprising the intramural program; amount of the intramural budget; source of funds for the intramural budget; source of intramural officials; amount paid intramural officials; if officials were members of an officials' class for which college credit was given; what method was used for qualifying officials.

The results of these questionnaire studies are herewith presented, with the hope that they may be of interest to intramural staffs of other institutions. No attempt has been made to set up any standards or recommendations. The data will be presented under Study I and II.

Study I Eighty-three institutions with enrollments of 1500 to 4500 men.

Intramural Activities

Thirty-nine different activities were listed in the intramural programs by the eighty-three respondents. The range in number of activities was from seven to twenty five, with the average program consisting of fourteen.

Table I

Range of intramural activities offered in eighty-three institutions:

Activity	Number Inst.	Activity	Number Inst.	Activity	Number Inst.
Basketball	83	B B Foul		Turkey Trot	
		Shooting	41	(cc)	8
Softball	83	Wrestling	48	Archery	8
Volleyball	80	Cross Country	34	Speedball	5
Tennis	79	Fencing	15	Baseball	4
Golf	72	Riflery	14	Table Games	4
Track & Field	66	Skiing	14	Field Meets	3
Touch or Flag					
Ftb	65	Squash	13	Flickerball	3
Swimming	63	Boxing	13	Weight Lifting	3
Table Tennis	61	Soccer	11	Shuffelboard	3

Activity	Number Inst.	Activity	Number Inst.	Activity	Number Inst.
Badminton	57	Gymnastics	9	Paddleball	3
Bowling	52	Hockey	9	Cageball	2
Handball	46	Water Polo	9	Sailing	2
Horseshoes	44	Pocket Billards	9	Tug-of-war	1

Intramural Budget

Amount

The response to the question on the amount of the intramural budget revealed that for the average program of 14 activities the budget was \$1900, the range being \$50 to \$12,000. The wide range shown is due to combining the intramural and general physical education budget. In many cases, the respondents gave only the physical education budget indicating that the intramural budget was included.

Source

There were six different sources listed for the intramural budget, with some overlapping. The six sources are given in order of frequency: physical education appropriation (42); student activities fees (26); appropriations from general education funds (25); fees from the competing groups (10); intercollegiate athletic gate receipts (5); student body funds (3).

It was interesting to find that sixty-one institutions rely on one source only with the majority of this group obtaining funds from the physical education appropriation. Sixteen institutions listed two sources, five listed three and three listed four sources for their funds.

Intramural Officials

Source

The seven sources from which officials were obtained are: officiating classes, physical education majors or minors, paid officials, physical education faculty, varsity athletes, participants and volunteers.

The first three groups, namely, officiating classes, physical education majors or minors and paid officials, provided eighty-three per cent of the officials for the intramural programs. The remaining seventeen per cent came from the other four sources above.

Qualification Requirements

Officials selected from the sources given above were made to meet qualification requirements. The questionnaire revealed that there were five methods whereby officials could qualify for handling intramural games. The methods with number of times listed by the institutions,

follows: Passing of an officiating examination (41), enrollment in an officiating class (35), status as a physical education major or minor (35), experience in playing the activity (11).

Officials Pay

Where officials were paid the rate ranged from fifty cents (.50) to two dollars and fifty cents (\$2.50) per game depending upon the amount of the budget and the sport involved. Officials were paid to officiate the following activities: basketball, softball, football (flag and touch), volleyball, soccer, swimming and wrestling. Sixteen institutions did not pay officials at any time.

Officiating Class

Thirty-five of the institutions answering the questionnaire offered officiating classes. These classes met from one to five times a week. Three institutions held occasional special meetings of the class. In determining grades in classes, practical work appeared to be the most important factor with written examinations next in importance. Class participation, reports and class projects were also mentioned as integral parts of a grade.

Study II Thirty-seven universities and colleges of the Western College Men's Physical Education Society, in nine western states, with enrollments from 600 to 12,000 men.

Group I is comprised of sixteen institutions with enrollments from 4,000 to 12,000 men; Group II has nine institutions with enrollments from 1500 to 4,000 men and Group III consists of the smaller institutions with enrollments from 600 to 1500 men.

Intramural Activities

The number of activities offered in the sixteen universities and colleges in Group I range from twelve to thirty-four activities with an average of twenty. Group II shows a range from nine to thirteen activities with an average of eleven for the nine institutions. The range of activities for the twelve institutions in Group III has from six to twenty-five activities with an average of eleven.

Intramural Budgets

Amount

Thirteen of the sixteen institutions in Group I answered the question on the amount of money spent for intramurals. The range was from \$700 to \$5400 with an average expenditure of \$2251 per institution. The nine

institutions in Group II showed a range from \$85 to \$1326 and an average of \$672, while Group III revealed a range from zero to \$2000 for the twelve institutions with an average of \$614. One institution stated that it did not receive funds for intramurals and relied upon intramural fees for officiating funds.

Source

The source of funds for the sixteen institutions in Group I was as follows: eight obtained funds from the physical education budget; two from Intercollegiate Athletics; five from Associated Student Body funds; two from a combination of the physical education budget, general college funds and Associated Student Body funds.

Three of the nine institutions in Group II obtained funds from the physical education budget while the other six institutions received funds from a combination of Associated Student Body funds, physical education budget and general college funds.

The funds for the 12 institutions in Group III were obtained from the following sources: physical education budget (4); Associated Student Body funds (3); intramural fees (1); combination of physical education budget, Associated Student Body, Intercollegiate Athletics and intramural fees (4).

Intramural Officials

Source

The sources from which officials are selected in Group I institutions are in order of rank; physical education majors, varsity members, sign-up list, physical education classes, participants.

Group II institutions depend upon physical education majors and varsity members for officials.

The source for officials for the twelve institutions in Group III is largely majors in physical education. Five of the institutions named only majors while six others gave majors, physical education classes and varsity as sources. One checked interested persons, only.

Training

In Group I, eleven of the sixteen institutions have an officials training class and seven grant college credit. In nine of the eleven, the class is elective.

Seven colleges reported that the per cent of the total games officiated by class members was as follows: 2 institutions-75 per cent, 2-50 per cent, 1-40 per cent, 2-10 per cent.

In Group II, eight of the nine institutions conduct officials training classes; five grant college credit; two required the class for majors; five hold the class as an elective.

Six institutions reported that the per cent of the total games officiated by students are: 3 institutions-100 per cent, 2-50 per cent, 1-20 per cent, 1-5 per cent.

In Group III, none of the twelve institutions have an officials' training class; six grant college credit. Three required the class for majors, while the class is elective for the other six.

The per cent of the total games officiated by the students in eight institutions is: 4 institutions-100 per cent, 1-75 per cent, 1-50 per cent 1-10 per cent, 1-5 per cent.

Amount Spent For Officiating

In Group I, the amount spent for officiating for the 1958-59 college year ranged from \$150 to \$4600 with an average of \$1398. Only three institutions spent under \$600. All institutions paid officials and the rate ranged from one dollar to three dollars per game with one dollar and fifty cents the average per game. Three institutions paid more for football and basketball than for other sports.

Five institutions of the nine in Group II spent no money for officiating in 1958-59 and the other four spent \$939, \$400, \$350 and \$75 for officials. The latter four paid at the following rates: 1 institution-\$3 per game, 1-\$2 per game, 2-\$1 per hour.

Four institutions in Group III did not pay officials in 1958-59. Eight institutions paid from \$25 to \$594. Five of these paid officials per game as follows: 1 institution-\$2.50, 1-\$1.50, 2-\$1, 1-80¢. Two institutions paid 90¢ and \$1 per hour for officials.

Method of Qualifying Officials

In Group I, the method of qualifying officials is mostly a combination of the following: pass official's examination; enroll in officiating class; have status of major or minor; be a member of a varsity team. However, only six institutions checked the items "pass officials examination," and "enroll in officiating class."

For Group II institutions, the two most used methods of qualifying officials are: (1) enrolling in an officials class, (2) varsity experience.

There seems to be no definite pattern for qualifying officials in the twelve institutions in Group III. Four institutions require officials to enroll in an officials class. Many of the respondents checked item g, "other" and commented as follows: "held clinics," "training sessions," "obtained list from Placement Bureau," "have outside officials for championship games," "we know who is qualified."

Summary

Two intramural studies were conducted on budgets, officials and activities at Washington State University. Study I was made in March 1958 and Study II in November 1959.

Study I comprised eighty-three colleges and universities with enrollments of 1500 to 4500 men. Areas studied included activities, budgets and officials. A total of thirty-nine different activities were listed by the eighty-three institutions. The range in number was from seven to twenty-five with the average program consisting of fourteen. Sixty-one institutions rely on one source only, with the majority of this group

obtaining funds from the physical education budget. The average budget was \$1900.

Study II was made up of thirty-seven institutions from nine western states. The areas studied were the same as in Study I. The data was presented under three groups. Group I consists of sixteen institutions with enrollments of 4000 to 12,000 men; Group II, nine institutions with enrollments of 1500 to 4000 men; and Group III with enrollments of 600 to 1500 men.

HOW DO WE HANDLE THIS ONE?

HARRIS F. BEEMAN
Michigan State University

Intramural directors encounter a variety of situations and problems that require immediate decisions. Problems of eligibility, rule interpretation, protests, publicity and field preparation are a few of the director's dilemmas. In an effort to determine the problems common to a directors of the Western Conference and the procedures by which they are solved, tape recorded interviews were held with each director. Thirty-two problems collected were reported as separate case problems. Those problems that involved human relations were of particular interest, as they seemed to be the most difficult type problem to solve.

The following problem areas were determined by the directors to be the most frequently encountered and the most difficult to solve.

1. Eligibility rules.
2. Publicity in school paper.
3. Office management.
4. Building management.
5. Relations with other departments and faculty.

Problems connected with the solving of intramural eligibility violations and protests are a definite source of extra-curricular concern for the directors. By extra-curricular, I mean the type of problem the directors take home with them from the office. Violations varied from the thirty-second play in a basketball game of a resident hall counselor who was a graduate student and, therefore, ineligible to compete, to a case of extreme complexity. To show the length to which some units will go to win an All-Year Sports Championship, the condensation of a case problem is presented:

During the Spring fraternity track meet, an intramural scorer reported to the director that he was sure that one of the contestants was running under an assumed name. The student intramural official claimed that he knew the student whose name was listed on the sheet for the particular contestant. The director did not confront the runner at the time because he thought it would be merely a case of one student's word against another. The track meet continued and the team which had the questionable runner won the meet, and subsequently won the All-Year Sports Trophy.

The day following the meet, the director checked the name of the runner in question, and found that he was a member of a fraternity and that he had been living in the dormitory. The director then felt that he could do nothing for the rest of that spring season.

Two months later, in July, the intramural official who had questioned the runner, came by the school and reported to the director that he had found out who the man was that had run under the assumed name — he also found out that the runner went to a nearby school. The director added this information to the file, which he had collected on the case.

Now, quoting directly from the case problem and the director's report, "Fall season, 1958 started, and it was interesting that a member of this particular fraternity who had violated the rules at the track meet in question, came to work in the intramural office. He was a whiz — he had an adding machine mind, and he figured all of our bowling handicaps. He was an engineering student and he handled the point system for us. Toward the end of the season when they were figuring up the points for a particular unit, he raised the question about a particular team who had used an ineligible player. He asked if we should take away their participation points, which was the usual procedure. He pointed out that they had waited for about a week before they came in and admitted it. I said, 'If you think we've waited a long time to solve that case — what about this case?!' With that, the director pointed to the information which he had on the top of his desk with the name of the ineligible runner and the college to which he had gone in that area. The director reported that this student turned about six shades of green and confessed the whole incident. He had tears in his eyes because his fraternity had won the all-university participation trophy on the basis of the track meet. He said that the fellow going to the nearby school was a cousin of one of the members of the fraternity — he was also on the varsity track team of his college. The fraternity had anticipated how many sports they felt they could win in the other spring sports, and they figured the only possible way they could win the point trophy was to win a certain number of points in track meet. This student with the mathematical mind had figured it out. The illegal runner was to place so high in each event. He had been briefed on the campus and the fraternity he was representing, so he could meet the director, if necessary, without giving anything away.

After the admission of guilt, the director called the fraternity president, the manager and other house officers to discuss the values and virtues of the intramural program. An attempt was made to educate that particular group to help spread the philosophy of the program. The director reported that the house became one of the most cooperative, enthusiastic, and clean groups in the entire program. The penalty agreed upon with the director and the students involved was to take away the all-year trophy and present it to the team that then had the next highest points. No probation nor trial period was assessed to the violating fraternity."

The majority of the other western conference directors agreed upon

the penalty imposed on the fraternity. The publicity and humiliation of the fraternity appeared to be sufficient penalty.

Generalizations useful as guides to intramural administration can be drawn from the reactions of the Western Conference Intramural Directors to specific case problems. These generalizations are undoubtedly similar to those used by many of us in administering our programs. However, many times we act intuitively without having stated guides or principles to aid us in making our decisions.

Following are some generalizations that may prove of interest to intramural directors:

1. Directors should recognize and seriously consider recommendations from student organizations.
2. Intramural game rules and participation regulations often prove to be incomplete and are not infallible.
3. An equitable all-year point system is difficult to devise and a point system tends to create tensions among units.
4. Errors caused by supervisory mistakes and inadequate regulations should not cause units or individuals to be penalized.
5. Rulings pertaining to individuals and units should be discussed by all concerned before the rulings are invoked.
6. Direct lines of communication should be maintained between director, students, and officials concerned with student affairs.
7. Consideration should be given to the replay of contests under protest because of rule misinterpretation, rather than determining the winner by rule alone.
8. Strict disciplinary action should be invoked for direct, intentional violation of rules and exhibitions of personal disrespect of the director and his administrative staff.

The conference directors indicate that the individual student is of first importance in the determination of decisions concerning participation and activity. When a conflict occurs between regulations and policies and students' interests and desires, serious discussions considering modification of the regulations are encouraged between the students and directors.

Some Western Conference Directors maintain student intramural councils or boards to handle problems and protests. Other conference directors solve these problems individually or in consultation with other staff members. In either case, the students involved in the problems are encouraged to participate in the formulation of decisions.

Several items of information of interest and possible usefulness to intramural directors were disclosed during the study, such as:

1. Inadequate regulations caused eight out of the eleven administrative problems involving intramural rules and regulations.
2. The student protest is a definite part of the intramural regulation system. Seven of ten case problems involving individual or team violations were reported to the intramural director by means of a protest.
3. The Western Conference Intramural Directors recommend and

encourage student participation in the determination of decisions and regulations concerning eligibility and conduct violations.

4. Pressures created by point systems are significant sources of problems to the directors.
5. Actions and decisions by student supervisors and officials are a significant source of administrative problems.
6. Problems involving the control of participants, such as ineligibility, make up the most difficult single problem area for the director.

Intramural programs are no longer small extras, merely tolerated by college administrators and athletic directors. Most of you supervise and direct budgets, facilities and equipment totalling tens of thousands of dollars. In the Western Conference alone, the buildings used solely and in part for intramural activities, exceed fifteen million dollars in value. The budgets in individual schools climb to fifty thousand dollars and higher. The men and women students serviced by these programs may well exceed fifty thousand a year.

The responsibility and skills necessary for the administration of programs of such immensity can not be assimilated from a book or a particular course. The potential intramural administrator who will eventually replace all of us should have an opportunity to benefit from our experiences. One of the methods to be seriously considered for the preservation and utilization of these experiences is the case problem technique.

A director might maintain an objective record of not only those problems he encounters most, and those which are most difficult to solve, but also of the processes by which the problems are resolved. The director could then use this "case book" to orient assistants more quickly and more realistically to situations similar to those the assistant will encounter. The director himself might benefit from being able to review similar cases and the decision-making processes that occurred.

It would appear sensible, if not imperative, to preserve for appraisal at the very least, the processes by which intramural administrators (as well as all administrators) arrive at their decisions, if we are going to successfully meet the tremendous expansion and responsibilities of tomorrow's intramural programs.

ON BUILDING AN INTRAMURAL POINT SYSTEM

RICHARD B. MORLAND
Stetson University

Since I am not actively engaged in the management of an intramural program, I think that I can pass on my observations without being accused of self-adoration. In my estimation, the intramural director wears the mantle of the most important man in any department of physical

education, recreation, or athletics. Through a program of depth and breadth, he is rendering a service to the university that affects more students in a meaningful fashion than perhaps any other single individual.

The intramural director who gets the job done must be a man of many talents. From my impressions, it takes a person with the executive ability of a General Motors Vice-President, the facility for detail of a bank teller, the persistence of a door-to-door salesman, the optimism of a Norman Vincent Peale, the memory of a Univac, the compassion of a minister, and one who speaks with the finality of a magistrate to administer successfully one of these large-scale operations. With balls and foils to be checked out and in, officials not showing, eligibility cases to be resolved, players to be consoled who thought they were "robbed," fields too wet, too dry, too hard, too soft, postponed contests to be played, protests to be heard, and a host of other problems that occur daily, I am amazed as to how intramural directors manage to retain their composure.

Not the least of the administrative problems the intramural director faces is the adoption of a point system that is equitable, designed to promote participation, and one that is applicable to all types of tournament competition. This is the problem with which we were saddled several years ago. After a careful study of I-M Handbooks from universities of all sizes, available texts in the field, and chats with some of you who have wrestled with this situation, a point system was developed that has proved to be quite satisfactory for us at Stetson. While it is designed to meet the needs of colleges and universities in our class, it is felt that it can be adapted for use at larger institutions as well.

Basic Principles

Before the effort was made to establish some sort of numerical base, several principles, based upon what we thought the intramural program should accomplish, were set forth as guides. These principles were as follows:

1. Participation. Since the fundamental purpose of the intramural program is to encourage participation, a premium should be placed upon entering a team in competition and participating in the sport until its conclusion. It was felt that entrance points should be approximately 50 per cent of the total points allotted for winning the sport.

2. Classification of Sports. Sports that require several participants and are played over a longer period of time should receive the major emphasis when determining the points to be awarded.

3. Forfeits. Penalties should be assessed against any organization that fails to field a team ready to play at the appointed time. A percentage of the total entry points would be subtracted from the total for each forfeit, and if a team enters competition and drops out, points would continue to be deducted even though the total is more than the entrance points.

4. Championships. A team winning the championship should be awarded the maximum number of points for that sport, but the total should not be so great as to eliminate from contention for the supremacy trophy teams that may have finished down the ladder in that particular sport.

5. Equalizing the Championships. The number of points awarded for winning the championship in any single sport should not exceed that for winning any other sport in the same class.

6. Points for Each Win. If points are awarded on the basis of the final standings, the motivation for winning may be removed from contests played late in the season after the place standings are settled. By placing importance upon winning each contest, a team should be able to pick up additional points even though it cannot improve its place in the standings. Major consideration should be given, therefore, to the number of victories an organization posts.

7. Contingencies for Scoring Sports Run in Various Types of Tournaments. Since some sports might be run in single- and double-elimination brackets, others in round-robins and double round-robins, and still other in meets, provision should be made in the scoring system for each of these different types of competition.

Translating The Principles Into Practice

With these principles established, steps were taken to incorporate them into a flexible and functional point system. The several sports were classified into two divisions according to the number of team members required, length of play, relative importance of the sport, and interest of the participants. The base of 98 and 49 points was set up for winning the championship in the two classes in addition to entrance points of 50 and 25 for the respective divisions. The use of these multiples of seven was selected for most sports are run in round-robin play with eight teams in each league.

Since a copy of the complete system follows this report, I will not elaborate upon the several provisions. Two of its features might be of general interest, however. The procedure of awarding points for each league win has helped to maintain interest in the sport throughout the season. For instance, if the place standings were already determined but the team in third place with 3 wins and 3 losses was playing the first place team which had a 6 - 0 record, it would make a difference of 23.2 points in their total score if the third place team were able to defeat the league champion in this particular contest.

Another feature that was not found to be in general use in the various point systems that were studied is the method used for scoring meets. The points for each event are totaled as usual and the final standings determined. The team with the highest total would be considered as having defeated every other team in the meet as in round-robin play, the second place team every team except one, etc. Thus, if there were

14 organizations in the meet, the winner would have a record of 14 and 0, the second place team, 13 and 1, etc. The total points earned for winning these meets, such as riflery and cross-country, for example, would be no more or less than winning badminton, table tennis, or any other sport in the same class.

THE STETSON POINT SYSTEM

The scoring system now in use at Stetson University is presented for those who may be interested. While it has been found to meet our needs, a committee from the Intramural Board is studying it at the present time with a view of establishing a third class of sports.

Classification: The various sports are divided into two general classifications: Group A — Basketball, Bowling, Softball, Swimming, Touch Football, Track, Swimming, and Volleyball. Group B — Badminton, Cross-Country, Golf, Foul-Shooting, Horseshoes, Paddleball, Riflery, Table Tennis, and Tennis.

Entrance Points: For entering a team in competition, each team is awarded entrance points as follows: Group A — 50 points; Group B — 25 points.

Championships: For winning the championship in a particular sport, a team is awarded the champion's points as follows: Group A — 98 points; Group B — 49 points.

Points Awarded for Each Win: Round-Robin Play. Group A: The number of points awarded for each victory depends upon the number of wins the first place team had, divided into the champion's points. For example, if Team Z won the football championship with seven wins and no losses, each victory in the league would be worth 14 points ($98 \div 7 = 14$). If the champions had a record of 6 wins and 1 loss, each game won by any team in the league would be worth 16.3 points, etc. The winning team will receive 98 points irrespective of its record. Playoff games within leagues count in the regular standings in that league. When there is inter-league play to determine the championship, seven bonus points are awarded for each win in the playoff.

Group B: The same method of scoring as used for Group A sports will apply except that each win is worth 7 points ($49 \div 7 = 7$) if the winning team posted a record of seven wins and no losses. If the winning team's record was 6 victories and 1 loss, each win is worth 8.2 points, etc. The winning team will receive 49 points irrespective of its record. Playoff games within leagues count in the regular standings in that league. When there is inter-league play to determine the championship, 3.5 points will be awarded for each win in the playoff.

Points Awarded for Each Win: Single/Double Elimination. Single elimination: The winner will receive 98 or 49 points depending upon the classification of the sport. The points for each victory will be determined by dividing the number of games won by the champion into 98 or 49. For example, if a Group B sport is run in single elimination, each

victory is worth 12.25 points if the sixteen-team bracket is used. Byes will be recorded as wins. Double elimination: The winner will receive 98 or 49 points, as usual. A ratio of 2:1 is applied to wins in the winner's and loser's brackets. For example, if a Group B sport is run in double elimination, each victory in the winner's bracket is worth 9.8 points and each win in the loser's bracket is worth 4.9 points if the sixteen team draw is used. Byes will be recorded as wins.

Points Awarded If Sports Are Run in the Form of Meets: If Group A or B sports are run in the form of meets (track, riflery, golf, swimming, cross-country, etc.) the team with the highest point total will be considered as having defeated every other team in round-robin play; the team with the next highest total will be considered as having only one loss, the third place team with only two losses, etc. For example, if eight teams are entered in the cross-country run, the team that won first place will be considered as having won seven contests and lost none. Its point total will be 49 points. The second place team will receive 42 points, the third place team 35 points, etc.

Penalties, Forfeits: For each forfeit, points will be subtracted from totals as follows: Group A: minus 20 points; Group B: minus 10 points. If a team enters competition and drops out, points will be deducted even though the total is more than the entrance points. Failure to attend Intramural Board meetings: Five points will be deducted from an organization's total for each unexcused absence at Intramural Board meetings.

INTRAMURAL INJURIES

DAVID O. MATTHEWS

Bowling Green State University

The recent series of "training clinics" sponsored jointly by the Ohio High School Athletic Association and the American Medical Association have spotlighted the seriousness of the problem of athletic injuries in school sports. Since, in many institutions, the problem of injuries incurred in intramural play has grown to such alarming proportions, the writer feels that serious thought and discussion should be given to ways of preventing or handling intramural accidents.

There are a number of ways whereby an intramural director can administer his program so as to prevent the occurrence of a large percentage of accidents. Several of these procedures for reducing accidents are outlined in the following paragraphs. They are not new nor are they revolutionary. However, they should be put into practice or fitted into all programs in some manner.

The appointing of competent supervisors to regulate the conduct of the games is the first and perhaps one of the more important measures the director may take to safeguard the entrants from injury. Included among the supervisors should be faculty members who, because of

their knowledge of the sports and of their status, not only can recognize injury causing situations but also can require steps to be taken to eliminate to a great extent the dangerous situations. In like manner the student field or floor supervisors should be so imbued with the idea of participant welfare that they too are constantly on the alert to take proper measures to reduce accidents on the playing areas. It is recognized that the supervisors cannot be on each field all of the time. Therefore, it should lie within the jurisdiction of the officials, who have been carefully trained, to try to prevent accident-prone situations from arising. If they cannot handle the matter, they should refer it to the field supervisor and he, if necessary, to the director.

The second of these measures involves the provision of adequate play areas. The word "adequate" implies that the fields, floors, or courts are smooth-surfaced, properly lined, and cleared of foreign obstacles. They should also, whenever possible, be of regulation size. It is not too much to ask that the maintenance personnel who line the fields or care for the floors along with the field or floor supervisors who are familiar with the areas make continual surveys to insure that the playing areas are safe for competition.

Although the terms "facilities" and "equipment" are synonymous to some extent, there is a difference in their meaning. "Equipment" denotes such paraphernalia as balls, bats, bases, and even includes such items as horses and parallel bars, while a "facility" is the area of play. Since it is recognized that intramural players deserve as good equipment as the varsity team members, articles of equipment which are inferior in quality or damaged as a result of play should not be tolerated on the competitive field. Certainly cracked softball bats, insecure flying rings, slippery diving boards, torn bases, dirty or ripped mats, inadequately strung bows, or cracked vaulting poles have no place in an intramural program if the director has genuine concern for the welfare of the contestants.

A third way whereby the health of the participant is safeguarded is through the establishment of some sort of requirement concerning health examinations. Such stipulations immediately pose a host of problems, none of which are easy to solve. For instance, the bookkeeping alone consumes a considerable part of the time of the secretaries or managers if a conscientious effort is made to keep up-to-date records. This is especially true in the larger universities where there might be from three to four thousand men participating in the program. Some schools have attempted to absolve themselves from any responsibility by having the players sign a type of waiver card which indicates that they have had a medical exam or are fit to play in that sport. This is one way to approach the issue, but is it entirely satisfactory?

Another phase of discussion relative to the subject of physical examinations is the question as to whether or not individuals who are excused from the required service program for medical reasons should be allowed to compete in intramurals. If the required program is comprehensive enough to include activities for the physically

handicapped, then the intramural director in the health interests of the excused students should not allow those persons to participate in any of the intramural tournaments.

A fourth technique which may assist in cutting down the number of injuries is the revamping of rules and regulations on game and practice conduct. This technique has, in my own experience, effectively reduced the possibility of accidents. I have found that since most intramural accidents occur in touch football, rules which forbid hard blocking, permit passing the ball anywhere on the field, and prevent the rushing of the kicker can considerably decrease the number of injuries during a season. Up to five years ago at Bowling Green, it was not uncommon during the fall months to have as many as twenty to forty injuries ranging in seriousness from sprained ankles to ruptured spleens and brain concussions. Through a major overhaul of the game rules and the inclusion of the above suggested changes, it has been possible to eliminate practically all injuries in touch football except for an occasional sprained ankle or pulled muscle.

All entries in the more strenuous sports such as distance running, swimming, or wrestling should go through a period of training before competing in these meets. This requirement is necessary in order to keep ill-advised or over-ardent entrants from participating in vigorous activity before their bodies are sufficiently fit to withstand the rigorosity of the activity. It is recognized, though, that the recording of the required strenuous practices is in itself no easy job.

Even though all of the above mentioned safeguards may be provided, injuries cannot be completely eliminated. It is, then, mandatory that the intramural director accept his second major responsibility — the proper provision for first aid treatment of the injured. This means that a minimum of three things should be done in order to provide for adequate treatment. The first of these requires the hiring of field or floor supervisors who have had a course in first aid. With such trained individuals patrolling the play areas, the director can be assured that the physical welfare of the competitors is protected. At least, he can be sure that aggravation of the injury through injudicious handling or loss of blood can be avoided.

Secondly, satisfactory first aid should be readily available. This may necessitate the establishing of first aid stations at different locations on the playing areas. The proximity of the first aid material to the victim may prevent further injury to him.

Thirdly, a training room should be provided for the use of intramural contestants. Since the varsity team coach would not tolerate the absence of a training room for his athletes, why should the intramural director? Here, many of the injuries such as contusions, abrasions, lacerations, and sprains may be treated by a well qualified attendant. Such services should be required whenever there are intramural contests in progress. Immediate attention to minor hurts may prevent them from becoming major ones. However, merely having a person in a training room to handle injuries of this nature is not enough. The person in charge should

be able to recognize the more serious injuries. He must not hesitate to refer the victim to the university health center or to the civic hospital for x-ray or hospitalization.

However, the problem of student injuries requires of an intramural department head not only a knowledge of prevention and care. He must also be concerned with the financial loss a student may sustain, because of an injury incurred on the intramural playing field, even though intramural sports contests are voluntary. The participant who is not protected in some manner may suffer an economic setback which may force him to drop out of school for a quarter, semester, year, or possibly for all time. If the varsity athlete is protected from financial loss, why not the intramural competitor?

The following are several suggested solutions to the problem of financial loss resulting from injury. The first of these requires that each individual player carry some sort of hospitalization or accident insurance, which he pays for himself. This type of coverage is available at some schools; at Bowling Green the student pays a six dollar premium for the academic year and is thereby covered for any injury he may suffer in any activity.

The second means whereby the expenses incurred by the student through accidents on the intramural play field may be lessened is by including in the intramural budget an item to take care of the costs of ambulance transportation, x-rays, or laboratory work. Most accident cases are mobile in that they can walk to a first aid station or training room. There are those, however, who cannot move because of fractures or concussions. These persons need to be transported by ambulance and this means that a charge of \$10 or \$15 will be levied against them. If x-rays are needed to diagnose fractures or internal injuries, the cost may mount another \$20. Laboratory analyses may boost the sum still further. These costs could become excessive. If the intramural program, which is financed by student fees, could absorb the cost of these services, the per-participant portion would be negligible.

The third and perhaps least widespread method of protecting the injured from economic setback is for the intramural department to sponsor and pay for insurance to cover all costs arising from the treatment of injuries sustained in intramural play. At the present time, we at B.G.S.U. are investigating the possibility of obtaining such insurance for our participants. We know it is available to high school intramural as well as varsity athletes. Why should it not be within the jurisdiction of the university departments to pay for the premiums for a so badly needed type of insurance?

Foreign Relations

PHYSICAL EDUCATION IN INDIA

HARTLEY PRICE

Florida State University

The government of India is greatly concerned with the physical condition of the population in general and of the youth in particular. In 1956 the Government selected the Central Advisory Board of Physical Education and Recreation to prepare a national plan of Physical Education and Recreation. This plan is to serve as a blueprint for the future development of a sound program of physical education. Only the smallest beginning has been made. It will be years and years before a semblance of the program is realized. However, it is promising that a National College of Physical Education has been established at Gwalior, in north central India. This institution, LAKSHMIBAI COLLEGE OF PHYSICAL EDUCATION, is under the capable direction of Principal P.M. Joseph, who received his undergraduate training at Springfield College, Springfield, Massachusetts.

Physical Training - not Physical Education

Despite the terminology in the proposed program of physical education, it must be admitted that the existing program in India is physical training rather than physical education. This is largely due to the fact that years ago the British instituted a formal system of physical training which was put into effect mainly by Army personnel. A redeeming feature of this system was the introduction of British sports, such as cricket, field hockey, and soccer.

Two Americans have made notable contributions to the history of physical education in India. Dr. Henry Grey did an outstanding job at the Calcutta YMCA in 1908. Mr. H. C. Buck, a Springfield College graduate, established the YMCA College of Physical Education at Madras in 1920. From time to time, personnel from this college have studied in the United States and this has proved to be of help throughout the years. Undoubtedly a great advance will be made when the graduates of Lakshmibai College make their influence felt.

Lack of Philosophy of Physical Education

At a seminar on physical education held at Lakshmibai College of Physical Education in September, 1958, two Fulbright professors, Mr. Mack Greene and the author, were used as consultants. Shri Kalyan Kumar Dutt, who had spent three years at New York University, pointed out that India needed a sound philosophy of physical education, without which the development of an effective profession would be impeded. Shri P.M. Joseph indicated that the term physical education was a misnomer in India. He also indicated that certain National Defense

programs were intruding on physical education, and that they were being substituted for physical education. He considered it time that this misconception be clarified. The author emphasised the importance of action, initiative, and hard work in formulating and implementing a philosophy of physical education in India.

It was agreed that the Consituition of India should be the starting point. India has proclaimed itself a sovereign, democratic republic, guaranteeing to all its citizens, justice, social, economic, and political liberty of thought, expression, belief, faith and worship; equality of status and opportunity; and to promote among them all fraternity, assuring the dignity of the individual and the unity of the nation. Physical education was then defined as general education which attempts to lead the individual and the group into situations affording opportunities for the learning of neuromuscular skills, the acquisition of organic vigour (strength, endurance, agility, flexibility, power, balance); the development of desirable social attitudes and the enjoyment of creative expression through big-muscle play activity. Objectives were set up and certain principles were stipulated that should receive attention if the objectives are to be achieved. Such objectives and principles are quite similar to those that would be advocated here in the United States.

It became obvious that physical education and physical training must be clearly differentiated if progress in the profession of physical education was to be achieved.

The following differentiations were made:

PHYSICAL EDUCATION	PHYSICAL TRAINING
1. The individual the center of activity.	1. The program the center of activity.
2. Individual's initiative to reach his own objective.	2. Limited imposed objective.
3. Guided program.	3. Directed program.
4. Activities informal in nature.	4. Activities formal and regimented in nature.

It was decided that the following factors impede or limit the physical education program in educational institutions in India:

1. Lack of facilities, playgrounds, equipment, due to improverishment.
2. Lack of competently trained personnel (professionally trained people).
3. Low ratio of personnel to student body.
4. Inferior status of physical education teachers: (a) Economic, (b) Administrative.
5. Inadequate communication among the professionally trained people within their profession and outside.
6. No professional status.
7. Lack of financial means for the encouragement or development of above.

Importance of Final Examinations

The effective growth of physical education in India is further handicapped by the significance that is given final or matriculation examinations. Apparently the typical student in India is interested only in the success of his final examination, a condition that tends to stifle creative effort throughout the educational system. Physical education particularly is hurt, however, because it is not necessary to pass any physical education requirements in the final examinations. It would seem, then, that physical education can not make any real progress until it is included with other subjects in the final high school examination.

Need of Publicity

Physical education throughout India needs wider, favorable publicity in the press, radio, films, and now with the introduction of television in New Delhi.

Health Education Imperative

It would seem that a program of health education is of primary importance and should be carried out before significant progress can be made in physical education. When a people is undernourished, the added effort required for physical education activities would scarcely seem of benefit. Therefore, it would seem wise to insure all students in schools and colleges in India a well-balanced, adequate mid-day meal, the same to be provided by the school.

With the industrialization of India, a planned recreation program for the workers will become a necessity.

The author stressed that a balanced program of physical education should include:

1. Individual sports
2. Team sports
3. Aquatics
4. Rhythms
5. Combatives
6. Gymnastics
7. Open country sports, i.e., mountain climbing, hiking, horseback riding, etc.

Indigenous Activities

In addition, the author stressed the importance of India's own indigenous activities, namely, Mallakhamb, Lathi, Lezim, Yoga, Kabaddi, Indian Wrestling, and Kho-Kho.

Mallakhamb

Mallakhamb, or Indian gymnastics or wrestling a pole, is one of the most unusual and interesting sport activities that the author has witnessed. Perhaps it would become very popular in the United States if introduced by a skilled performer and teacher. The activity is about seven centuries old and has been used as an aid to wrestlers. The

author is convinced that it would contribute greatly to advanced gymnastics and wrestling in the United States.

MAL means wrestling; KHAMB means pillar - wrestler's pillar. The pillar or pole was at one time used for the practice of holds. The sport has developed into an independent one with many wide varieties. A common variety consists of a pole usually made of teak, placed firmly upright and embedded in level ground. The pole tapers toward the top, is roughly nine inches in diameter at the bottom and perhaps five or six inches at the top. It is treated lightly with pure castor oil in order to avoid friction and burns.

The performers practice all types of amazing vaults, postures, balances, holds, and movements on the pole. Incidentally, the writer observed that on the whole, Indians are extremely well-coordinated, flexible, strong, daring, graceful, self-controlled, well-disciplined and patient.

Lathi

Lathi is an indigenous, combative activity in which an individual practices attacking or defending himself in a fight. He uses a stout pole or stick which may or may not be reinforced at the ends with a rounded, brass-knob effect. It is said that one man can protect himself against four or five people with the Lathi. He may defend himself using various skills of faking, hitting, running, swinging, and thrusting the Lathi at the opponent. The various skills involve hitting or striking at the head, the thigh, the neck, the foot, front and back, and swinging in all directions. In addition, the skills of breaking the attack must be learned.

Lezim

Lezim is a rhythmical activity often called Ghati or Deccani. The performers hold the lezim, a small, hand apparatus about twelve inches long with metallic attachments that give a tinkling, bell-like sound. The activity made the writer think of a form of dance by American Indians. Lezim starts with a relatively slow tempo which gradually increases until it reaches a strenuous, almost frenzied, intoxicating, ecstatic climax.

The basic movement of Lezim is a rhythm in eight counts. There is close timing of the feet and the hands; the body is bent forward at times, and at times is thrown upward. Lezim apparently is related to the combative activities and was used during periods when, dominated by conquerors and kept in submission, the Indians were forbidden aggressive activities, lathi especially.

Yoga

Yoga is an indigenous activity which is comprised of a series of asanas or meditative poses. The main consideration in Yoga is concentration and self-control and relaxation. The asanas are really a means to an end. They merely constitute basic elements in physical

self-control. As one becomes more competent in Yoga he learns breath control and eventual control of the nerve centers. In brief, it is an endeavor to obtain peace of mind.

The learner needs a correct mental attitude while performing the asanas. He should be willing to accept pain and strain, and make a concentrated effort in achieving the particular pose. He should hold the pose for a considerable time even if it hurts. The endeavor should be made to dismiss distractions completely from the mind, thinking only pure thoughts and curbing all evil thoughts.

According to D. N. Rajanna, Assistant Director of Physical Education, Soccer and Wrestling Coach, University of Mysore, Mysore, India, "The aim of Yoga on the physical side is to avoid disease, and insure health by establishing and maintaining physiological harmony in the human body. Cleanliness, self-discipline of the body and mind, and regulation of life are some of the features of yoga. The immediate goal of yoga is self-control and NOT self-torture. Asanas are physical exercises enabling the body to be physically fit for the meditation of God. Their immediate aim is to gain health and happiness and their final goal is to attain mental tranquility leading to final absolution, i.e., absorption into God which is the end and aim of everyone in this worldly existence according to Indian philosophy."

Kabaddi

Kabaddi, another game with many wide variations (whip Kabaddi, whip-tag Kabaddi, Touch Kabaddi, etc.), could, perhaps, be called the national game of India. It is played with a variety of rules, but the attempt is being made to standardize them so that north, south, east, or west teams can play on an equal basis. There are seven players on each side. It is a game of squatting raiders and catchers. The raider, squatting, approaches the opponents "canting" Kabaddi constantly, trying to touch the opponents. During this whole process the raider is holding his breath, and is constantly "canting" aloud "Kabaddi, Kabaddi". The game thus develops long breath endurance, strength, agility, speed, timing, body control, and quick action.

Indian Wrestling

Indian wrestling is a national sport and seems more rugged than the western form of wrestling. Shallow pits are dug outdoors for the activity, which can be conducted without much expense. Wrestling is very popular with the simple folk throughout India who earn their livelihood by the soil. Mallakhamb is a preparation for this combative which demonstrates remarkable quickness of action and suppleness. In early days, harmful holds were used and often caused fatalities. This aspect of the sport has been eliminated and national competition is now held in amateur wrestling.

Kho-Kho

Kho-Kho is played between two teams consisting of nine players on

each side. Two short sturdy posts are placed about 40 feet from each other, between which the defensive players squat. It is a complicated, interesting, skillful and strategic form of tag, with an elimination process being part of the game. It is popular with girls.

Status of Professional Training

The professional status of physical education must be raised in India before effective results may be obtained. At the present time, the program is handicapped because of poor preparation of teachers and the extremely low emolument that is given them. Until recently the only teacher requirement was a diploma course which had no prestige in a university. The establishment of the graduation course at Lakshmibai College of Physical Education is a trend in the right direction. This is the only degree course in India. However, a diploma may be obtained from thirty-one other institutions in India. A higher calibre teacher is needed if the status of physical education is to be raised.

Lack of Facilities

Another handicap that faces the progress of physical education in India is the lack of adequate facilities. Playgrounds, gynmasia, athletic fields, and swimming pools are needed all over India, a great problem since such projects are so costly. It is hoped that more facilities will be considered in the Third Five-Year Plan, and that they may become concrete realities rather than a vague, intangible plan.

Coaching Camps

During the past two years, India has experienced much social pressure regarding the matter of a better showing in international competition. Large government appropriations have been allotted to the Rajkumari Sports Coaching Scheme, directed by Shri M.N. Masud. Intensive coaching camps in all sports under outstanding foreign coaches have been organized. Participating agencies include all Sports Federations; Inter-University Board of India; and Control Boards for Railway Sports, Services Sports, and Police Sports. Many of the outstanding athletes of international calibre are connected with the railways, the services, or the police. The process of training the selected few will not solve the problem of the needs of the masses. India needs outstanding physical educators who can provide opportunities for all by means of a broad program, which includes games, sports, gymnastics, rhythms, and combatives, as well as India's own widely varied indigenous activities.

Physical Education for All

It is to be hoped that the recent emphasis upon expert coaching for the few will not deflect from a sounder, more effective and adequate goal—that of physical education for the many - a prodigious task in a land of about 400,000,000 people. A small beginning already has been made at Lakshmibai College of Physical Education (in North Central India), but many more colleges of the same calibre are needed urgently.

Ideally, a wide, general program of physical education for the

masses is needed. Concentrated coaching might be given to the relative few who warrant it. Such a plan would take years of effort.

There are so many factors that need to be taken into consideration, among them the ATTITUDE of the masses (the average Occidental craves action - even though it may ultimately destroy him; the Oriental desires peace, contemplation, calmness, insight, and composure; the DESIRE for education in general, and for physical education in particular; the HEALTH and NUTRITION of the masses; the ability to deal with 700 dialects, and fourteen Mother tongues; the customs and traditions of a widely divergent peoples; the climate; the terrain; the problem of transportation to educational centers, the need of roads in order to facilitate transportation, and so on and on.

As the picture is viewed in its entirety, the many problems seem incapable of solution. The optimist, however, who is able to see not only ten years ahead, but fifty years into the future, can see mighty oaks growing from small acorns, the small acorns now being sown on the campus of Lakshmibai College of Physical Education in Gwalior. The optimist sees also, the well-trained younger people being given the opportunity to express and to put into practice their modern ideas, creative, practical, visionary as they might be.

The educational system of India now seems to be entirely in the hands of the older citizens, who perhaps have lost that early enthusiasm that makes for rapid progress; perhaps too, other interests come first with them, so that educational matters do not receive the attention that is needed. The well-trained, younger generation, full of zest and modern ideas, willing to work without stint, keenly desirous to live in a progressive India, are apparently discouraged at every turn. They seem to be given no recognition, no chance to express their ideas of progressive principles of physical education, and find no opportunity to expand. They seem, rather, to be forced to fit into the deep ruts of conservatism and of physical training, whether or not they like it or approve of it.

The picture as it is given here seems dark. But surely the glimmer of a new dawn is becoming visible. The old order in India, i.e., power in the hands of the complacent and venerated few must slowly but inevitably fall into the hands of a waiting, eager youth. The young men, many of them, are alert to the times. They read of the progress of other countries; they admire that progress. They want an India that can stand independently and alone - an India capable of making strides under her own steam - an India that is more than a match for any other country. Many of the young men are willing to give a lifetime of work toward that goal.

Indians are a proud people. They do not enjoy the role of recipients. They are aware of their needs and their lacks, and of their shortcomings. The foresighted among them are determined to attack and to solve the countless problems that confront their country. Such a spirit is beginning to make itself felt among some of the college student bodies. A few students, well-known to the writer, already have

shown signs of breaking away from centuries-old traditions that stand in the way of progress for India, a matter simply not even thought of a few years ago.

The zeal of a dedicated Indian knows no bounds. Awakened, alert, given a chance, given a cause, the youth of India could start a march that ultimately could lead to triumph and success!

Let this address be closed with the fervent words of India's leaders and students:

***JAI HINDI - - VICTORY TO INDIA!**

PHYSICAL EDUCATION: A MEDIUM FOR INTERNATIONAL EDUCATION

RICHARD C. HAVEL
Springfield College

Any educational or cultural program which provides for an interchange of ideas or persons among nations may be included within the broad framework of international education. Methods employed to achieve cooperation and harmony in international matters vary widely, and the possibilities for positive results exist wherever mutual concerns and interests are found. The scope of fostering intercultural understanding is so vast, that the problem may be approached in many ways. Though the broad aim of most programs in international education is to develop friendly world relations each has its distinctive features. International education cannot be viewed as being limited to a single organization or field of study. Opportunities present themselves on many fronts, and it is important that advantage be taken of every possible source of cultural interchange.

Need for International Education

In a world scene which is changing rapidly, man's scientific and technological progress is far surpassing his accomplishments in the sphere of human relations and understanding. As the frontiers of science continue to advance they are seemingly accompanied by an increase in international tension and unrest. The cultural diversity of the world's many racial and national groups becomes more apparent as improved transportation brings all corners of the earth within each reach. Cultural conflicts deeply rooted in a complex number of social, political, and economic factors afford no simple solution. In an era of racial tensions, conflicting political and religious ideologies, and heightened nationalistic feelings in underdeveloped countries, nations are challenged to bridge the cultural gulf which exists between them. The need for understanding, accepting, and appreciating cultural differences which exist in the world has never been more poignant.

***(Jai Hind - pronounced - Jay Hind (as in hinder)).**

No longer can countries remain isolated from their neighbors, but rather they are confronted with developing cooperative measures which will lead to greater understanding and cultural interchange. The world community is faced with making the best use of all available resources to prepare enlightened citizens and leaders, capable of contributing to the solution of international problems. Progress toward this end can be achieved through the effective utilization of every avenue of international communication. The role of physical education in this undertaking is to be considered carefully, and serious efforts made to capitalize on its potential for the purposes of international education.

The International Character of Physical Education

The very nature of human movement is such that in many respects it transcends language barriers. It is basic to man's health, expression, and recreation, regardless of his cultural or racial heritage. The physical educator in any nation is concerned with the language of movement, which represents a common medium of understanding. A source of mutual interest, physical activity in its many forms serves all peoples in similar ways. Man communicates through movement employing symbolic patterns which in many instances carry universal meaning. The international implications of motor activity when used as an educational vehicle are not to be overlooked. As a fundamental part of man's existence, the international language of human movement can probably be more fully exploited for achieving better understanding among peoples throughout the world.

Any study of man's cultures reveals a number of similarities, regardless of the time and place of their existence. The theory of a universal culture pattern is generally supported by anthropologists, though there are differences of opinion regarding its fundamental components. It is suggested that their source is to be found in the "fundamental biological and psychological nature of man and in the universal conditions of human existence." In discussing "The Common Denominator of Cultures," George Peter Murdock classifies athletic sports, dancing, games and hygiene among the many common elements of all known cultures. All of these are part of or closely related to physical education. The universality of many physical education activities reinforces the desirability of their use as a means for international education.

In a practical sense, the elements of skill involved in athletics serve as a base of common experience. Many games and sports enjoy a world-wide participation, and successful performance is dependent upon the mastery of specific patterns associated with each of these. The fundamental skills involved do not vary, and understanding is achieved primarily by seeing and doing. Much can be accomplished without verbalization, since participants share a common frame of reference. This characteristic substantiates the position of physical education as a fertile field for cultural interchange and improved international human relations.

Along similar lines, the scientific bases of physical education can

also serve as a unifying bond among nations. A common scientific framework exists within which motor activities can be studied and compared. Fundamental principles of physiology, mechanics, and measurement provide a foundation for research which can be undertaken to solve a number of mutual problems. Cooperative possibilities for joint efforts on the international level in this phase of physical education are limitless.

Though little attention is often devoted to making fuller use of the aesthetic potential of physical education, there is every reason to believe that a sensitivity for appreciating the artistic qualities of motor performance is shared by all peoples. As a medium of expression there exists in physical education a familiarity of motor experience which is in large measure international in character. Difficult to identify in terms of objective standards, examples of this concept are probably best seen in our appreciative responses to performances in the dance, gymnastics, figure skating, and fancy diving. To a large degree, qualitative judgments are made in these areas, and in others, on the basis of appreciation and appeal. This occurs at different levels of understanding and experience, but nevertheless, has universal application to the field of physical education.

Finally, consideration is to be given to the status of physical education as part of the educational pattern throughout the world. "A World Survey of Education," completed by the United Nations Educational, Scientific, and Cultural Organization in 1955, reveals that a large number of nations include physical education experiences in their curricular offerings at some level in their educational planning. With established programs in operation in many countries, the possibilities for international educational approaches in physical education are numerous. Careful study is to be devoted to determining the most fruitful means through which valuable contributions in the field can be made to improved international understanding.

Programs of International Education

The United States contributes to and cooperates in a number of technical assistance programs administered by the United Nations, as well as participating in the activities of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Membership in the Organization of American States (OAS) also provides opportunities for achieving greater understanding among nations of the Western Hemisphere through a variety of educational projects. In addition to these affiliations with international governmental organizations, the United States maintains and operates a number of its own programs of international education. Many government agencies are involved in these, with the best known being the educational exchange program of the Department of State, the technical assistance projects of the International Cooperation Administration (ICA), and the overseas information program of the United States Information Agency.

In the last decade American institutions of higher learning have increased their efforts in the promotion of international education by

supporting programs of their own and by cooperating with various government and foundation organizations actively engaged in this area. There is a genuine concern in American higher education relative to the importance of continuing international educational activities at the college and university level. A report of the Commission on Education and International Affairs of the American Council on Education in 1957 stressed the necessity for closer government-institution cooperation in identifying broad purposes, developing policies for programs, and establishing clearer channels of communication. It also emphasized that further expansion is contingent in large measure upon the degree to which programs can be adequately financed by outside sources. Despite obstacles to be overcome, educational institutions can be expected to assume an influential role in shaping the development of future programs of international education.

The wide variety of programs sponsored by international governmental agencies, individual nations, educational institutions, private foundations, and religious organizations offer many opportunities for physical education to be utilized in international educational efforts.

Professional Implications

With the present emphasis and interest in world affairs, American physical education is challenged to keep in step with current developments in the international realm of education. As a field of professional endeavor, its members cannot afford to neglect obligations to contribute to progress taking place. Serious consideration is to be given to whether physical education is being used to greatest advantage as a force for world understanding and good will. A critical evaluation of past and present efforts is needed, if the fullest potential of international physical education is to be ever realized. The future course of physical education in international affairs will be dependent largely upon the professional leadership proved by personnel presently engaged in college and university work.

The extent to which professional preparation curricula equip students with a working knowledge and an understanding of foreign programs of physical education warrents examination. In light of world conditions it becomes increasingly important to broaden the professional context within which personnel are prepared. Greater attention focused in this direction would serve to enrich present offerings, providing students with a deeper insight into the expanding scope of their chosen field. It is generally recognized that the professional curriculum cannot remain static, with revisions being made in keeping with the demands of an ever-changing national and international scene. Further study and exploration is necessary to determine the manner in which this end can best be achieved.

A number of international professional organizations in and related to physical education are engaged in a variety of international projects. While these efforts are to be commended and encouraged, their influences may be so widely dispersed as to be ineffective. In some instances these

groups perform over-lapping functions and as a result, duplication in programs exists. The need for coordinating the work of these organizations without violating their autonomy of purpose is evident. Possibilities for combining similar but separate programs through cooperative planning and sponsorship are to be surveyed. The concentration of professional efforts on a broader and more intensive plane can serve to increase the effectiveness of international approaches in physical education.

In addition to participating in programs already in operation, physical educators in the United States and elsewhere can further their influence internationally by giving attention to planning for the future. Several pressing needs are to be met if the contributions of physical education to international education are to be strengthened. Some of the possibilities for positive action rest in (1) developing long-range plans on an international basis for program direction and continuity; (2) establishing a centralized source through which international matters in physical education could be channeled and coordinated; (3) preparing periodically a comprehensive survey and analysis of international efforts in physical education; (4) furthering the development of international research projects in physical education; (5) developing closer working relationships between the profession of physical education and international governmental organizations; and (6) studying the role of physical education in interdisciplinary approaches to international education.

The importance of international education in the future is not to be underestimated, and the field of physical education must be prepared to contribute to the solution of an ever-growing number of world-wide educational and cultural problems.*

WORLD SPORTS AS DEPICTED BY POSTAGE STAMPS

DAVID A. FIELD

University of Bridgeport

Ever since the issuance of the first postage stamp in 1841, people have been interested in collecting them. Until the turn of the century the field was sufficiently limited to permit people to attempt to collect any and all kinds. However, as more were printed, philatelists found it necessary to narrow their scope of collections.

As a result, collectors sought only those stamps from certain countries or during certain stages of development of those nations. A host of philatelists turned their attention to topical or thematic collecting which involves collecting stamps according to specialized topics. The November 20, 1959 issue of Life magazine devotes many pages to this

*The bibliography for this paper will be provided by the author upon request.

subject and shows the variety of topical interests people have, such as stamps relating to birds, fish, flags, animals, authors, music, art, boy scouts, railroads, etc.

According to the American Topical Association, sport stamp collecting attracts one of the largest and most enthusiastic groups of topical collectors. Even the term "sport stamps collecting" is too broad, and now many are confining their interests to olympic stamps, stamps picturing but one particular sport, or stamps of sport buildings.

As one becomes more avidly interested in this subject he soon asks himself the question - - - - "What is sport?" Does the sport stamp reflecting a rook and a king in chess belong in the sport category - - - - is the child who rolls a hoop on the beach or the one who walks on stilts portraying sports? - - - - does the folk dancer or the mountain climber convey the sports impression? Eventually, the collector makes his own decision as it relates to his personal collection and it may be quite different from those sports definitions found in the physical education texts or in the dictionary.

It would be possible to reveal an authentic history of sports through postage stamps. There are Greek stamps that show sports information handed down through works of sculpture and from athletic paintings found on their pottery. Germany, Poland, Sweden, and Switzerland have honored such physical education pioneers as Jahn, Tyrs and Pestalozzi.

It would not take long before one could see how world-wide soccer is, because it is by far the most commonly pictured sport shown on stamps issued by nations throughout the world. We would also see that, while football is one of our most popular American sports, philately speaking no country shows a concern for it. On the other hand, we could take American sports of baseball, football and volleyball and show stamps which indicate that international competition has been conducted. This certainly has been a reflection of the promotional efforts of the YMCA, American servicemen and American professional ball players.

Countless stamps picture women participating in sports. While competition by women was not permitted in the golden days of Greece, it is now commonly accepted in nearly all lands.

There are also numerous stamps that show the relationship between the physical fitness aspects of sports and self preservation and national defense. One set of Romanian stamps showing a javelin thrower in the foreground superimposed on a hand grenade thrower and a hurdler superimposed over a soldier jumping an obstacle are very impressive in this respect.

More and more states are endeavoring to tempt people to come to their locales for recreational purposes, and countries do the same for propaganda purposes. In 1958 for example, Canada issued a set which shows the hunting, fishing, skiing and swimming advantages of spending a vacation in Canada. Japan has also issued a set to popularize its national parks.

Olympic years are particularly good occasions for countries to issue colorful stamps to attract attention to their nations. The United

States, which seldom issues sport stamps, will issue some for the winter games in California, and many other lands will help commemorate the Rome games with their own stamps in 1960.

Sport stamp collecting is a fascinating hobby for the physical educator who desires to find a leisure-time interest related to his vocation. It also broadens his horizons of the international sport picture.

REPORTS

PRESIDENT'S REPORT - 1959

As might be expected, this has been a busy, happy, and challenging year, with much correspondence with many persons. No record has been kept of the exact number of letters written, but is surely runs into the hundreds. All expenses in connection with typing, stencils and paper, and stamps have been taken care of by the Department of Physical Education for Men, University of Illinois. While the Association furnished stationery and stamps for the three President's Letters, your president spent nothing else that could be charged to Association funds.

The most exciting part of service as your leader during this year has been the many fine suggestions, the wonderful cooperation, and the professional help which so many of you have extended. You may be sure this has all been appreciated and that the Association has profited because of your interest.

You have been kept abreast of the happenings during the year through the three President's Letters, one in January, one in May, and the last one in November. Our Association was represented at a number of professional meetings by the following:

A. H. Steinhaus and D. Misner, George Williams College - National Health Forum

John Jones and Sheldon Fordham, University of Illinois (Navy Pier) - American Council on Teacher Education

J. H. Krupa, George Washington University - American Council on Education

S. E. Barnes, Howard University - National Conference on Science Courses in the Professional Program in Physical Education

A. W. Twitchwell, Rutgers University, Installation of President Gross, Rutgers University

Glen Howard, Queen's College - Installation of President Meister Bronx, New York

Guy Nesom, Northwestern State College - Installation of President Walker, Northeast Louisiana State College

Several members of the Association participated in the Workshop on Facilities and Equipment, while others were leaders and participants in the Colloquium on Exercise and Fitness, sponsored by the University of Illinois and the Athletic Institute.

The outstanding contribution of our Association during the year was the publication of the pamphlet, "Fit for College," followed by our cooperative sponsorship of two highly successful workshops, one on science, and the other on athletics. An outstanding and highly success-

ful meeting of the Western College Men's Physical Education Society was held in Reno, Nevada, October 16th and 17th. It was well-attended and numerous new members in the College Physical Education Association were secured. Clair Langton was elected president, and Nels Neilson, president-elect. The group voted unanimously to accept the proposition of the CPEA that the western group would be a part of the Association.

The success of the Association this year, and especially of this fine Convention, is due directly to the dedicated efforts of President-Elect Snyder, the members of the Executive Council, the chairmen of the different sections, and the chairmen of the various committees. Special thanks is also extended to the many dedicated and professional section participants, and especially to those professional persons who are present at this Sixty-Third Convention. It is the hope of your president that the Association will continue its growth in membership, in stature and professional promise, and in contribution to the profession.

Respectfully submitted,

C. O. Jackson
University of Illinois

Minutes

EXECUTIVE COUNCIL MEETING

December 27, 1959

Present: C. O. Jackson, President; R. A. Snyder, President-Elect; R. E. Jamerson, Secretary-Treasurer; J. H. Shaw, Past President; Scannell, Gary, Alley, Sills, Schnitzer, Convention Manager.

Absent: Karl Bookwalter, Councilman-at-large.

1. Approved dates of December 28-30 for the 1960 meetings in Washington, D. C. at Willard Hotel.
2. Approved Kansas City, Kansas as site for the 1961 meetings.

Respectfully submitted,

R. E. Jamerson
Secretary-Treasurer

Business Meeting

December 29, 1959

1st Session

This session followed the Second General Session of the Annual Meetings and was concerned only with the hearing of reports.

There was a quorum present. The following reports were presented:

Joint Committee Reports:

American Council on Education - C. O. Jackson moved report be received; second by H. C. Kenny; passed.

College Committee on Physical Education and Athletics - L. K. Butler, (T. E. McDonough reporting) moved report be received; K. McCristal second; passed.

National Committee for Improvement of Professional Preparation in Health, Physical Education, and Recreation - C. O. Jackson moved report be received; J. H. Shaw second; passed.

Representative Assembly of the AAHPER - R. E. Jamerson moved report be received; R. E. Shelton, second; passed.

Implementation of Intramural Sports - No report.

Implementation of Physical Education - No report.

Co-educational Relationships - T. C. McDonough moved report be received; H. E. Kenney, second; passed.

President's Committee Reports:

Committee to Publicize Fitness Report - R. O. Duncan (C. O. Jackson reporting) made comments regarding work of committee.

Honor Awards - H. E. Kenny moved report be received; Svob second. After considerable discussion of this issue by Paul Hunsicker, Delbert Oberteuffer, Dick Jamerson and Bruck Bennett, the report was received with instruction for the incoming president to ask the committee to continue for another year and make more specific recommendations.

Convention Manager - Schnitzer moved report be received, David Field, second; passed.

Convention Publicity and Hospitality - K. J. McCristal moved report be received; Mackenzie, second; passed.

2nd Session

The regular business meeting of the Sixty-Third Annual Meeting of the College Physical Education Association was held in Cincinnati, Ohio on December 29, 1959. The meeting was called to order by President C. O. Jackson at 1:30 P.M. in the Ballroom of the Sheraton-Gibson Hotel. One hundred and ten members were present (one hundred and eighty-five was the official convention registration).

President Jackson reported on matters of general interest to the Association regarding his duties and actions as President during 1959.

President Jackson asked for permission to change the printed agenda. Moved by Messersmith; second by Bookwalter; passed.

R. E. Jamerson presented report of the Secretary-Treasurer and moved its acceptance; second by Kistler; passed.

President Jackson called for reports of committees as follows: (Discussion comments appear here; detailed reports by Committee Chairman appear elsewhere in the Proceedings.)

Nominations - J. H. Shaw, Chairman, presented the following slate of officers:

President-Elect — Ashbrook, Kistler, Scannel nominated. President Jackson called for nominations from the floor. Messersmith moved nominations close; second by Fall; passed. There being no majority on the first ballot, members were asked to vote for Ashbrook and Kistler, the two candidates receiving the highest number of votes. Kistler was elected on the second ballot.

Councilman-at-Large — Galligan, Hunsicker, McCristal nominated. President Jackson called for nominations from the floor. Fall moved nominations close; second by Palmer; passed; there being no majority on the first ballot, members were asked to vote for Hunsicker and McCristal, the two candidates receiving the highest number of votes. McCristal was elected on the second ballot.

Secretary-Treasurer — Mackenzie and Settle nominated. Shaw observed that there must be three candidates for the office. D. Oberteuffer nominated George Rider; second Messersmith. President Jackson then called for further nominations from the floor. Palmer moved that nominations close; second by Messersmith; passed. Mackenzie was elected on the first ballot.

Finance - Kistler moved that report be received; second by Rider; passed.

Foreign Relations - H. R. Ryan (Robert Korsgaard reporting) moved report be received; Svog second; passed.

Historical Records - No report.

Membership - Segrest moved report be received; Rider second; passed. New members asked to stand and be recognized.

Policies - Richardson moved report be received; second by Mackay; passed.

Public Relations - Schenk (Jackson reported) moved report be received; second by Mackay; passed.

Resolutions - Oermann moved report be accepted. No second. After considerable discussion, Oberteuffer moved; second by Bookwalter, that report be returned to committee for revision and that committee report back to Banquet. At this point, President Jackson suspended any action on this matter and asked Oermann to attempt to revise report and its acceptance; second by Nordly; passed.

Constitution - Massey (Jackson reported) moved report be received; second by Bookwalter; passed.

Necrology - Korsgaard reported passing of C. H. McCloy (memorial statement read by Alley); Robert Clark (memorial statement read by Butler) and William Meredith (memorial statement read by Korsgaard). Membership observed a moment of silence in respect to their departed colleagues.

Convention Program - Snyder moved report be received; second by Bookwalter; passed.

Continuing Committees:

Construction and Equipment - Cooper moved report be received as an interim report of the committee; second by Nixon; passed.

Operating Codes - No report.

Business - Nordly moved, second by Palmer, that Jamerson be given a standing ovation for his long and faithful services to the Association as Secretary-Treasurer for the past nine years. Passed. Kinsey moved, second by Fourier, that the Resolutions Committee submit their future proposed resolutions to the membership before the convention - through the President's newsletter - thereby enabling the membership to study proposed resolutions before the business meeting. After considerable discussion, the question was called for and the motion was defeated.

There being no further business, the meeting was adjourned by outgoing president, C.O. Jackson.

Respectfully submitted,

R. E. Jamerson
Secretary-Treasurer

Executive Council Meeting

December 30, 1959

1. Instructed Secretary-Treasurer to collate information relative to officers' duties, committee operating codes and Association policies into one booklet for distribution to officers and section and committee chairmen.
2. Approved list of committee assignments prepared by the President, with authority to President to make minor changes.
3. Approved policy of taking no official action to assist special interest groups in scheduling informal meetings.

4. Approved conducting the 64th Annual Convention Banquet at the NEA Headquarters, preceded by a guided tour of the NEA Headquarters.

Respectfully submitted,

M. M. Mackenzie
Secretary-Treasurer

Standing Committees

CONSTITUTION COMMITTEE

No changes or revisions are recommended.

Benjamin H. Massey, Chairman

CONVENTION PROGRAM COMMITTEE

This opportunity is taken to thank all section chairmen, section chairmen-elect, and others who directly or indirectly contributed to the planning of the program. Special appreciation is expressed to President C. O. Jackson for his leadership in the development of the program.

Ray Snyder, Chairman

FINANCE COMMITTEE

FINANCIAL STATEMENT—December 1, 1958 to December 1, 1959

BALANCE: December 1, 1958		CASH	2492.63
		RESERVE	<u>1771.69</u>
			4264.32
INCOME: Membership Dues	2810.00		
Convention	550.00		
Interest on Reserve	55.77		
	3415.77		3415.77
	Total Cash and Reserve		
	December 1, 1958		7680.09
EXPENSES:			
Convention: Registration	15.00		
Programs	101.62		
Ident. Tags	25.62		
Banquet Tickets	6.00		
Rentals	15.00		
Speaker	50.00		
Hotel	622.80		
Joint Comm. NCAA-AAHPER	25.00		
American Council on Education	50.00		
Athletic Directors Conference	100.00		
Proceedings	1958.23		
General Operation:			
Stamps	22.39		
Stat. & Env.	89.90		
Supplies	34.00		
N. C. Intangible Tax	1.99		
Tel. & Telegrams	30.61		
Bond (Sec'y-Treas)	10.00		
Membership Cards	8.00		
Membership Blanks	11.50		
Brochures	30.15		
Dues Notices	22.50		
Addressograph	30.25		
Secretary-Treas. Clerical & Serv.	<u>300.00</u>		
	3560.56		3560.56
	Total Cash and Reserve		
	Dec. 1, 1959		4119.53
	Less Reserve		<u>-1827.46</u>
CASH BALANCE: Dec. 1, 1959			2292.07

Respectfully submitted,
R. E. Jamerson
Secretary-Treasurer

FOREIGN RELATIONS COMMITTEE

The committee carried on its business by mail during the year. As it did not seem practical to schedule a pre-convention meeting, we did not have the opportunity to meet until the Annual Convention.

The past president, Mr. David Furman, has been very cooperative during the past year, and, on behalf of the committee and myself, I would like to express in this report our sincere thanks.

During the past year the "Operating Code," adopted in 1958, was mailed to all committee members. Discussion on the present "Operating Code" was the main topic at the luncheon meeting. All of the suggestions made by the committee will be sent to the next chairman.

The program for the Annual Meeting was planned by mail and held on December 28th at 10:30 A.M. 28 members were in attendance at this section meeting.

Flight Lieutenant Norm Ashton, Physical Fitness Specialist, R.C.A.F., Ottawa, presented Richard Havel's paper titled, "Physical Education: A Medium of International Education."

Professor David Field, University of Bridgeport, presented "World Sports as Depicted by Postage Stamps."

The presentation, "Physical Education in India," by Dr. Hartley Price, will appear in the 1959 Proceedings.

Two committee members complete their term of office this year and will have to be replaced by members who will serve for a three-year period.

H. R. Ryan, Chairman

MEMBERSHIP COMMITTEE

The procedure used for gaining new members and regaining delinquents was as follows:

1. Each committeeman contacted those colleges and universities in his assigned region in an effort to gain new members.
2. The names of the delinquents of the Association were divided among the eight committeemen. A personal letter and a follow-up letter were written to each delinquent.

As a result of this drive the association has gained thirty-five new members and three delinquents. 31 new members have joined at this convention. This brings the membership to a total of 771, of which 28 are honorary members.

H. B. Segrest, Chairman

NECROLOGY COMMITTEE

The activities of the Necrology Committee for 1959 may be summed up as follows:

In September a letter was written, by the chairman, to a member of the CPEA in each state of the Union, wherein we have members, as well as Canada and Puerto Rico, soliciting their assistance in securing names and memorials of deceased members.

In October a letter was sent to each of the five committee members from the chairman asking him to follow up the original request for assistance. Each committee member was assigned to specific states. The committee members were asked to be responsible for their own states in the original request.

In December a report of the findings of the committee was forwarded to the President.

The week preceding the Annual Meeting found that three members of the CPEA had died during the year. These were:

Robert L.A. Clark, Oberlin College
Charles Harold McCloy, State University of Iowa
William Forrest Meredith, University of Pennsylvania

Memorials have been received for these men and will be read at the annual meeting after which they will be submitted for inclusion in the Proceedings.

Opportunities for receiving other notifications and memorials will be made available to the general membership at the time of the Annual Meeting.

Thanks are expressed to the members and the committee for their cooperation.

Robert Korsgaard, Chairman

ROBERT L.A. CLARK

On December 12th of this year, a memorial plaque will be unveiled in the foyer of the Oberlin Field House. It states simply:

In Memory of
Robert L. A. Clark
Respected For His Quiet
Strength and Kindness
As A Coach and Gentleman
1958-59 Basketball Team

Just recently a book was placed in the Castleman Memorial Library on the campus at Ohio State University. The book was presented by the

Physical Education Department of Ohio State, and was appropriately titled "This Is Teaching." There was a statement in the front of the book that concluded with this paragraph:

"During his lifetime, Bob Clark spelled out his benevolent philosophy by being a gracious host, an understanding coach, a respected teacher, a loyal friend, a delightful golfing companion, a charming camping counselor, and a devoted husband and father. Whether in camp, in the classroom, on the playing fields, or in the home — Bob wrote lessons in daily deeds."

Both of these memorials express the greatness of this man.

Robert Clark was born in Sipes Springs, Texas, on April 8, 1911. He was an outstanding athlete in four sports, football, basketball, baseball and track, in both high school and college. He graduated from West Texas State College in 1932. He played basketball with one of the best amateur teams in the country, and coached and taught for six years at two Texas high schools. He was a graduate student at Ohio State for two years, and an instructor at Ohio Wesleyan University for one year before coming to Oberlin in 1941. After two years here, he spent three years as a Lieutenant in the Navy, and returned to Oberlin as head basketball and golf coach. He assisted with the football coaching, taught in the required physical education and major classes, and was advanced steadily from instructor to associate professor. He continued with his graduate work at Ohio State and completed all the requirements for the Ph.D. degree except the dissertation. Only his sickness of the last two years kept him short of this goal. Most of the material was collected, and Ohio State was so sure of the importance of the study that they have asked Mrs. Clark to permit it to be finished.

Robert Clark had a lively sense of humor, and an easy and natural way with college students. He possessed the fundamental quality for successful advisor and teacher, namely, a love for, and understanding of, young people. This was more vital to him than a scholar's interest in a particular academic field. He was a tireless worker on numerous college and departmental committees. He gave freely of his energies to community and religious interests. He was admired and respected by his fellow coaches in the National Basketball Coaches Association. His loyalty to Oberlin never wavered, and he was in complete sympathy with the athletic policy. As life in Oberlin is measured, he was here only a few short years, and yet, he had innumerable friends in the community.

The love and affection of his wife and family sustained him in his illness, and their spirit, and his, will always remain as an inspiration.

CHARLES HAROLD McCLOY

Dr. Charles Harold McCloy, 73, Research Professor Emeritus, State University of Iowa, died in Iowa City, Iowa, on September 18, 1959.

Dr. McCloy received the Ph.B. degree in 1907 and the M.A. degree in 1910 from Marietta College, Marietta, Ohio. After attending Harvard University, Johns Hopkins Medical School, and Ohio State University, he entered Columbia University and in 1932 was awarded the Ph.D. degree.

Dr. McCloy's long and illustrious career in teaching and research began when, as a student, he was appointed instructor in Physical Training at Marietta College, Marietta, Ohio. Upon receiving his undergraduate degree, he was appointed as Director of Physical Education and Acting Head, Department of Biology, at Yankton College, Yankton, South Dakota. In 1908, he entered the service of the YMCA as a Physical Director in Danville, Virginia. His career in YMCA work was culminated by thirteen years of service in China where he served as Secretary, Department of Physical Education, National Council of the YMCA, from 1913 to 1921, and as Director, School of Physical Education, National Southeastern University, Nanking, from 1921 to 1926. After returning to the United States, he served as Secretary for Research in Physical Education, National Council of the YMCA, New York City, until 1930, at which time he accepted an appointment as Research Professor in Physical Education, State University of Iowa. On July 1, 1954, following twenty-four years of distinguished service that brought to him international fame as a research worker in physical education, Dr. McCloy was named Research Professor Emeritus.

Dr. McCloy was a prolific writer and his works were published in professional journals throughout the world. His articles appeared in publications in Brazil, China, Chile, France, Germany, Italy, Japan, Norway, Portugal, Spain and Turkey, as well as in the United States. He spoke Chinese fluently, and read French, German, Italian, Japanese, Portuguese, and the Scandinavian languages. He was the author of more than forty books on health, physical education and athletics, many of which were published in Chinese.

Dr. McCloy completed numerous special assignments for governmental and research groups. He was a member of the Education Mission sent by General Douglas MacArthur to Japan in 1946, and served as consultant in physical education for several South American Governments. During World War II, he was chairman of the Civilian Advisory Committee, U.S. Navy Physical Fitness Program; physical re-conditioning consultant to the surgeon general of the U.S. Army; and consultant to the joint U.S. Army and Navy Committee on Welfare and Recreation. In 1945, he received a citation for patriotic service to the war effort.

Dr. McCloy received many honors for outstanding achievement in his chosen profession. He received the AAHPER Honor Award in 1936, the Gulick Medal in 1944, the Michigan State Centennial Award in 1955, the Hetherington Award in 1956, and the American College of Sports Medicine Award in 1958. Honorary degrees that were conferred on him include: Doctor of Physical Education from the University of Ottawa, Canada; Doctor of Science from Grinnell College, Iowa, and from Marietta College, Ohio; and Doctor of Letters, George Williams College,

Chicago. He served as president of the Central District AHPER in 1933-34, the AAHPER in 1937-38, the American Academy of Physical Education in 1947-49, and the Pan-American Institute of Physical Education in 1946-56.

Dr. McCloy will be remembered as one of the great pioneers in physical education. At his passing, the members of this Association share with his colleagues and friends throughout the world a sense of deep sorrow, together with a sense of gratefulness for the privilege of having shared in the benefits derived from his long and fruitful life.

Memorial Scholarship

Friends and former associates of Dr. McCloy who wish to contribute to the Charles Harold McCloy Memorial Scholarship fund, a loan scholarship for graduate students in physical education, are asked to send checks or money orders to Business Office, University Hall, State University of Iowa, Iowa City. Checks and money orders should be made payable to The State University of Iowa (Charles Harold McCloy Memorial Scholarship).

WILLIAM FOREST MEREDITH

William Forest Meredith, Professor of Physical Education, died on May 14, 1959. He was born in Londonderry, Ohio, on May 28, 1896. After attending public schools in Cambridge, Ohio, he matriculated at Denison University in 1914, from which he received the degree of Bachelor of Arts in 1920. In 1918 and 1919, during the First World War, he was in the Armed Services.

From 1920 to 1922 he was Director of Physical Education and Head Coach of football, basketball, and track in the Norwalk, Ohio, public schools. In 1922-1923 he was instructor in Physical Education and football line coach at Denison University. From 1923 to 1926 he was Director of Physical Education and Head Coach of football, basketball, and baseball at Ashland College. From 1926 to 1929 he was Assistant Director of Physical Education and Head Coach of football, basketball, and baseball at Ohio Northern University. In 1931-32 he was Acting Head of Professional Preparation in Health and Physical Education at Washington State College.

In the summer of 1926 he attended the graduate school of the University of Michigan and in 1929 he received the degree of Ph.B from Denison University. From 1929 to 1931 he took graduate work at Teachers College, Columbia University, from which he received the degree of Master of Arts in 1930. Finally in 1933 he received the degree of Doctor of Philosophy from Columbia University.

In 1933 he was appointed Instructor in the Department of Physical Education at the University of Pennsylvania and subsequently was

appointed Assistant Professor in 1935, Associate Professor in 1938, and Professor in 1942. In 1944 he was made Director of the Division of Physical Education, a position which he held up to the time of his death. He was, in addition, Director of Intramural Athletics. During these years he was Visiting Professor of Physical Education at the University of Pittsburgh in the summer of 1941, at Brigham Young University in the summer of 1953, at Utah State College in the summer of 1955, and at Temple University in the summers of 1954, 1957, and 1958.

During his professional career he found time to participate in various professional groups and associations in which he held many offices. He was a member of the American Association of University Professors; the American Association for Health, Physical Education and Recreation; the Pennsylvania State Association for Health, Physical Education and Recreation; the Philadelphia Association for Health, Physical Education and Recreation; the College Physical Education Association; and acted as patron for Delta Psi Kappa. In 1938 he was president of the Pennsylvania Association for HPER, in 1941-42 he was President of the Eastern District Association of the American Association for HPER, in 1951-52 he was Vice-President of the same association and in 1952-1959 Secretary-treasurer. He was a member of the Representative Assembly of the American Association and Eastern District Association, 1938-1946 and 1957-1959, and of the Board of Directors, American Association for HPER, 1942-1946. He was chairman of the Committee on Teacher Education, College Physical Education Association, 1948-1955; Chairman, Jackson's Mill Conference on Undergraduate Preparation in HPER, 1948-1952; Chairman, Pere Marquette Conferences on Teacher Preparation, 1948-1952; Chairman and Vice Chairman, National Committee for the Improvement of Professional Preparation in Health, Physical Education, Recreation, 1952-1959; President and Vice President, College Physical Education Association, 1954-1955; Member, Executive Council, College Physical Education Association, 1953-1956; Leader, Washington Conference on P.E. for College Men and Women, 1954; Director, National Conference on Intramural Sports for College Men and Women, 1955; Leader, P.E. Division, National Conference on Teacher Preparation, 1956; Convention Manager, Annual Convention, Pennsylvania State Association for HPER, 1948, 51, 54; Chairman, Program Committee, Conventions Pennsylvania State Association for HPER, 1949, 52; Member and Chairman of various committees and conferences and convention programs for American Association for HPER, College Physical Education Association, Pennsylvania State Association for HPER, Delaware State P.E. Association, 1934-1959.

In addition to all of these activities he was a member and chairman of various committees, a member of President Eisenhower's Conference on the Fitness of Youth and a member of the Conference on Fitness of the Governor of Pennsylvania; a speaker on many occasions and the author of many articles and publications.

During his career he was honored by election as a Fellow of the American Association for Health, Physical Education, and Recreation in 1943 and as a Fellow of the American Academy of Physical Education. He was elected to the Phi Delta Kappa and Kappa Delta Pi honorary societies. In 1940 he received the Honor Award of the Pennsylvania State Association for HPER. As a member of the Faculty of the University of Pennsylvania he participated in many of its activities. At various times he was a member of the Administrative Council, the Educational Council, and of the Senate. In the latter organization he was a member of the Committee on Athletic Policies and Procedures and in the spring of 1959 he was elected Secretary of the Senate. He was a member of the faculties of the School of Education, the School of Fine Arts, and the School of Allied Medical Professions. He was secretary of the faculty of the School of Education and a member of various committees on the faculties. He was a member of this faculty from its beginning, in 1950. He was faithful in attendance at faculty meetings and participated actively in discussions. As a friendly and active member of this faculty he will be greatly missed.

In addition to his many duties and activities he was an Elder of the First Presbyterian Church in Springfield, Pennsylvania.

He is survived by his widow, Pauline Adele Sheldon Meredith and one daughter Anne Meredith Amundson.

NOMINATING COMMITTEE

In accordance with the operating code Association members were invited to submit suggestions for nominees for offices in the C.P.E.A. through the president's newsletter. In addition, Executive Council members received a letter from the chairman of the Nominating Committee soliciting nominees.

As a result twenty-three names were submitted for president-elect, twenty for councilman-at-large and ten for secretary-treasurer.

After rating of candidates twice by the committee members in accordance with the operating code, the following slate of candidates for office are respectfully submitted:

President-Elect	Councilman-at-large	Secretary-Treasurer
W.P. Ashbrook	Glenn Galligan	M.M. Mackenzie
Joy Kistler	Paul Hunsicker	Casky Settle
John Scannell	King McCristal	

John H. Shaw, Chairman

POLICIES COMMITTEE

The Policies Committee devoted its attention to the following tasks during 1959:

1. A compilation of all back policies of the Association.
2. A job analysis for key offices of the Association.

Much work has been accomplished on the job analysis but the Committee was unable to finish the task. This should be completed in 1960.

Following is a list of policies of the Association as submitted to and approved by the Executive Council.

Deane E. Richardson, Chairman

College Physical Education Association Policies**I. INTRODUCTION**

A policy book is a cumulative document which contains all current policies formally adopted by the association to govern its affairs. For the purposes of our Association, a policy may be defined as a settled course of action to be followed in conducting the affairs of the organization.

In many cases, the provisions of the Constitution and By-Laws of the Association are not definitive. These provisions are implemented into action through the medium of policies and procedures. These policies and procedures tend to give continuity and uniformity to Association activities over a considerable period of time, irrespective of the changes that occur continuously among its officers and members. It is also through the medium of policies and procedures that the Association gears itself to the fluctuations of the times. 1954, 57th Proceedings, p. 222.

II. ACHIEVING ASSOCIATION PURPOSES**A. Association Objectives**

The College Physical Education Association shall:

1. use every influence to improve present programs in the schools at all levels, to the end that boys and girls of the nation have

adequate opportunity to develop desirable attitudes, knowledge and and skills in physical education. 1950, 53rd Proceedings, p.128.

2. support all efforts attempting to establish desirable athletic practices at each educational level to the end that physical education can make its maximum contribution to the welfare of the participant. 1954, 57th Proceedings, p. 209.
3. engage in activities looking toward the promotion of research designed to improve the quality and scope of programs of college health education, physical education, and recreation through (1) research activities of Association committees; (2) Association-approved studies by selected graduate students in colleges and universities; (3) Collaboration with other organizations conducting research programs; (4) reporting of research at regular meetings and in the publications of the Association; and (5) serving as a clearing house for research in college health education, physical education and recreation. 1954, 57th Proceedings, p.223.

B. Coordinating With Other Agencies

The College Physical Education Association shall:

1. cooperate with other educational agencies to improve teacher education. 1951, 54th Proceedings, p. 155.
2. cooperate with other educational agencies in promoting the objectives of health education, physical education and recreation. 1952, 55th Proceedings, p. 150.
3. call upon all school and college administrations to secure properly qualified professional personnel to teach, coach and administer physical education and athletic programs. 1952, 55th Proceedings, p. 149.
4. cooperate with other educational organizations in sponsoring and/or having official representation at conferences in the fields of health education, physical education and recreation. 1954, 57th Proceedings, p. 238.
5. coordinate whenever possible the work of committees and projects with similar committees from other professional organizations. 1954, 57th Proceedings, p. 196.
6. cooperate with other professional societies in the formulation of educational standards and in recommending them to colleges and universities for the development and control of programs of health education, physical education and recreation. 1954, 57th Proceedings, p. 223.

C. Service Program

The College Physical Education Association shall:

1. vigorously oppose the practice of substituting band or ROTC for the physical education service program. 1950, 53rd Proceedings, p. 150.
2. encourage colleges and universities throughout the country to abolish the practice of granting military service as blanket credit for physical education. 1951, 54th Proceedings, p. 153.

III. ADMINISTERING ASSOCIATION AFFAIRS

A. Membership

The College Physical Education Association shall:

seek to retain new members by better acquainting them with the traditions and present purposes of the organization. 1950, 53rd Proceedings, p. 140.

B. Annual Meeting

The College Physical Education Association shall:

1. have as the primary purpose of the regular meetings of the Association to provide the largest number of members with opportunities to discuss the major areas of the college program of health education, physical education and recreation. These meetings shall be planned so as to include wide participation among members. 1954, 57th Proceedings, p. 223.
2. select the dates of the annual meeting so as to make possible the maximum attendance by the members of the Association. To equalize, over a period of years, the distance traveled to meetings by members of the Association residing in the various sections of the country; the principle of periodic rotation among cities shall be given consideration in the selection of the site for the annual convention. 1954, 57th Proceedings, pp. 223, 224.
3. consider locations, in selecting the site for the annual convention, that place no restriction on Association members with reference to housing, attendance at meetings, or other factors tending to divide the membership. 1956, 59th Proceedings, p. 382.
4. select conference sites for the most part, in areas with the heaviest concentration of members; "local color" or side attractions should not necessarily be a determining factor. On occasion, the convention site should be utilized as a "foil"

to attract new members; the primary consideration, however, is to serve its present membership. 1958, 61st Proceedings, p. 312.

5. limit to three days the length of the official convention; this does not prevent any group from meeting before the convention, but groups shall not be included in the official program, nor shall any papers or summaries of pre-convention meetings be a part of the Proceedings. 1955, 58th Proceedings, p. 247.
6. require papers submitted for presentation to be limited to the basic essentials of the topic; in no case shall papers exceed 2000 words, including committee reports; the editor shall have authority to make deletions or changes necessary to conform to this policy. 1955, 58th Proceedings, p. 246.
7. require that abstracts of prepared papers be presented at the annual meeting, thus allowing more time for discussion. 1934, 38th Proceedings, p. 166.

C. Committees

The College Physical Education Association shall:

1. require each committee to submit its operating code to the Operating Codes Committee, who will in turn request that the Constitutional Revision Committee check each code to see that it is in keeping with the constitution. 1954, 57th Proceedings, p. 221.
2. rotate committee membership in order to involve as many members as possible. 1955, 58th Proceedings, p. 218.
3. provide a fund for use by the President in executing his duties; normally all of his expenses shall be borne by his institution, therefore this fund is to serve only as an emergency fund. 1955, 58th Proceedings, p. 246.

D. Publications

The College Physical Education Association shall:

1. disseminate deliberations of the official meetings through the published proceedings and through reports covering such special projects as may be authorized by the Association. 1954, 57th Proceedings, p. 223.
2. cooperate with the AAHPER for publication of the annual Proceedings. 1957, 60th Proceedings, p. 358.
3. carefully edit all publications of the Association to make certain that they represent a high quality of scholarship and follow

approved methods of conducting and reporting educational research. 1954, 57th Proceedings, p. 223.

4. not accept advertising or other extraneous material for publication in the literature of the Association. 1954, 57th Proceedings, p. 223.

E. Projects

The College Physical Education Association shall:

1. approve only those studies which benefit the Association. 1951, 54th Proceedings, p. 160.
2. not sponsor studies, but only approve them. 1951, 54th Proceedings, p. 164.
3. place in the hands of the Appropriate Committee requests by students seeking approval of the Association for doctoral studies; procedures to implement this policy will be included in the operating code of the committee. 1952, 55th Proceedings p. 146.
4. sponsor and conduct projects as approved by the Association; such projects should involve little or no expense; they must be of a nature that their business can be readily transacted by mail, and they should have some beginning and ending. 1954, 57th Proceedings, p. 207.

F. Historical Records

The College Physical Education Association shall:

1. house CPEA historical documents in a college library. 1954, 57th Proceedings, p. 238.
2. annually give two copies of the Proceedings to the library designated by the Association to house its historical materials. 1957, 60th Proceedings, p. 331.
3. preserve its historical records by duplicating the original copies; duplicate copies can then be distributed upon request from the library designated by the Association to house its documents. 1958, 61st Proceedings, p. 299.

G. Delimitation of Function

The College Physical Education Association shall:

1. not serve as an accrediting agency to evaluate specific programs of health education, physical education or recreation in individual colleges. 1954, 57th Proceedings, p. 224.

2. not involve itself directly in activities concerning the relationship of a particular college to its employees in such matters as employment, promotion, tenure, dismissal or academic freedom. 1954, 57th Proceedings, p. 224.

H. Maintenance of the Policies Book

The College Physical Education Association shall:

1. assign the Association secretary to be responsible for maintenance of the policy book. He shall make its contents available to officers and members whenever the need arises. 1954, 57th Proceedings, p. 223.
2. direct the secretary to include new policies in the policy book or to revise or delete those previously established as approved at a regularly scheduled business meeting at the annual convention; action on policies may be taken at any regular business meeting of the Association without the necessity of prior notice. 1954, 57th Proceedings, p. 223.

PUBLIC RELATIONS COMMITTEE

The Public Relations Committee set up three goals for its work this year:

1. News Releases
2. Letter to Editors
3. Articles for Magazines and News Media

So far, news releases have been sent to the public relations official of the college or university of each speaker or officer whose name appears on the Convention program. Included in the news story is a brief story about the C.P.E.A., its history, composition, aims, etc.

At least one of our Committee members has written a letter to editors of magazines who speak of the physical education profession in a derogatory fashion.

While our Committee accepts no credit for this fact, a number of our members have written articles for popular magazines which present physical education in a favorable light. Much more of this kind of writing for the public would be helpful in the opinion of the Committee.

It is hoped that the Committee will, in the future, try to coordinate our program better with the A.A.H.P.E.R. Perhaps there could be a joint program worked out which would improve the public relations of both groups.

Henry Shenk, Chairman

RESOLUTIONS COMMITTEE

The Resolutions Committee of the CPEA submits the following revised resolution which was passed by the membership at its meeting in Cincinnati on December 29, 1959:

Whereas physical education historically and currently is a phase of the American school and college curriculum contributing significantly to the development of American students, and

Whereas there is always occasion for the improvement of any phase of American education commensurate with the needs of modern man and consonant with present-day findings of the natural and social sciences, and because continuous interpretation to the other disciplines and to the general public is needed, and

Whereas physical education, as is true also of other professions, cannot hope to grow and assert itself in the larger world by recruiting only persons whose interests and talents are limited to the techniques and activity programs of the profession;

Therefore be it resolved that the College Physical Education Association commit itself and its membership to a policy of aggressively seeking to recruit into physical education an increasing number of young people possessed of ability and interests in the natural and social sciences, in the humanities, and in communication skills that equal, if not exceed their ability and interest in the performance and teaching of activities; and that such young people be permitted modification of their undergraduate curricula and be guided into graduate programs adapted to developing their special skills in the interests of research, philosophy, and interpretation related to physical education; and that the College Physical Education Association assign to a standing committee or to a special committee the task of waging a year-round program of stimulating the execution of this resolution and discovering and reporting specific illustrations where and how progress has been made in its execution.

Karl C. H. Oermann, Chairman

President's Committees**COMMITTEE TO PUBLICIZE FITNESS**

The committee recommends the following for publicizing the publication Fit For College:

1. Send complimentary copies to leading science and sports leaders throughout the country.
2. Send copies to editors of various professional journals in Education, Health Education, Physical Education, Recreation, and allied fields. Ask the editors to run a review.
3. Write to each state association and request review or comment in the state newsletter.

4. Advertise in the Journal of Health, Physical Education and Recreation.

5. Send complimentary copies to college and university presidents.

6. Write to department heads and deans of colleges and universities with major programs or service programs in physical education suggesting use of Fit For College as reference or text.

7. Send complimentary copies to:

(a) Boy Scout and Girl Scout organizations (National office – suggest they pass information to local units)

(b) Armed Forces

(c) Recreational Directors

(d) Industrial and union leaders and officers

8. Run stories or summaries in sports magazines, editorials, newspapers.

9. Prepare and present programs on TV and radio.

10. Seek to get a digest run in Look, Life, Newsweek, Time, Readers Digest, Saturday Evening Post, Sports Illustrated.

The big question is of course who will do the things suggested. Suggestions:

(a) The cost for the complimentary copies might be borne by the CPEA.

(b) Advertising in the Journal of Health, Physical Education and Recreation contribution of AAHPER.

(c) Contact with TV, radio, magazines, and newspapers and letters to state association presidents and editors to be by the President of the CPEA.

(d) The mailing of complimentary copies by the AAHPER.

Ray O. Duncan, Chairman

COMMITTEE TO STUDY ATTACKS ON THE BASIC INSTRUCTION PROGRAM

This committee consisted of Ralph Johnson (University of Alabama), Pete Sigersteth (University of Oregon), W.J. Schnitzer (University of Cincinnati), Cecil Morgan (Ithaca College), Ken Miller (Florida State University), George Shepard (University of North Carolina), R. C. Heidloff (University of Virginia) and J. O. Jones (University of Illinois, Chicago, Chairman). The committee was charged with the responsibility of studying the attacks on the basic instruction program – one of the most pressing problems facing our profession at this time. As enrollments increase and there is greater competition for space and money this problem will become more acute.

A fourteen-item questionnaire was distributed to 368 institutions throughout the United States. 315 institutions responded representing a return of 85.6 percent. Information was received from many different types of schools under various types of control. Enrollments varied from a few hundred to over twenty thousand. The data presented in this report are a summarization of the questionnaires. It is hoped that from this

initial study may come a plan to strengthen the position of the basic instructional program.

A tabulation revealed that 289 out of 315 institutions reporting had a required program for men, 243 schools had a major program for men, and that over 70 percent of the schools had a physical education requirement of two or more years. 90 percent reported that grades other than pass or fail were recorded and 70 percent counted physical education grades in determining overall academic averages. However, an alarming number of schools, almost half, allowed other activities to be substituted for physical education. Varsity athletics represented the leader in this group by a wide margin. ROTC and band were other activities that could be substituted.

Almost one-fourth of the schools surveyed have changed their graduation requirement within the past three years. Over half of this group have increased or strengthened their requirement for graduation. In the listing of changes that have resulted in a weakened program, the reduction of physical education requirements for graduation was most frequently given. Those persons who initiated the changes to reduce graduation requirements were almost exclusively either the academic faculty or the administration. This fact points directly to the need to interpret our program to these persons. On the other hand the physical education department accounted for 18 of the 23 persons who initiated changes to increase the requirements. The questionnaires revealed that only 185 of the 315 schools feel they have gained prestige since World War II — not a very complimentary figure. Those institutions which have gained prestige listed the strengthening of the requirement and faculty acceptance of the program as being the main reasons.

It is the feeling of the committee that the comments given by individuals relative to the question of counteracting attempts to reduce or eliminate the requirement are extremely valuable. The following is a summarization of the comments given:

1. Continue to interpret the physical education program to all members of the faculty.
2. Establish good rapport with all university departments.
3. Insist on the maintenance of high standards of teaching, planning and presenting materials.
4. Publicize the program through all media.
5. Promote research on all levels.
6. Establish better communications within and outside the department.
7. Strive to do a thoroughly professional job on all committees.
8. Evaluate, analyze and assess the basic program in the light of its contribution to the total education of the person.
9. Be a doing member of the college faculty.
10. Assure that all areas — athletics, required program, intramurals—assume their proper role in the unified structure.

As we face the decade ahead it appears that the task of providing the necessary staff and facilities for the increased number of students

Number Where Physical Education Grades Count in O.A.A.	219
(e) May a student substitute other courses or activities for physical education?	
Number Permitting Substitution For Physical Education	157
(f) What activities may be substituted?	
Activity Being Substituted For Physical Education*	
Varsity Athletics	131
ROTC	61
Band	49
Other	18

PART III -- CHANGES IN PHYSICAL EDUCATION PROGRAM

8. Have any changes in the graduation requirements in P.E. been made in the past 3 years?	
Institutions changing Graduation Require- ment Within Past 3 years	71
Reduced Requirement	22
Increased Requirement	23
"Weakened" Requirement	2
"Strengthened" Requirement	22
No Effect On Requirement	2
9. Were any of these changes approved?	
Yes	43
No	26
Pending	2
10. Have the changes strengthened or weakened the program?	
Strengthened	37
Weakened	13
Same	10
Strengthened If Adopted	2
11. Changes Resulting in Weakened Program	39
Reduced P.E. Requirement For Graduation	12
No credit given for physical education courses	2
Emphasis on athletics	4
Decreased facilities	3
Other	16
Not Specified	7
12. (a) Who Initiated Changes To Reduce Requirements	
Administration	7
Academic Faculty	10

* These four activities do not total (e) due to more than one method being used in some schools.

Physical Education Department	2
Student Newspaper	1
AFROTC	1
Students with High Grades in Courses Other Than PE	1

(b) Who Initiated Changes to Increase Requirements

PE Dept.	16
Administration	2
Not Specified	5

(c) Who Initiated Changes That "Weakened" Program

Administration	1
Academic Faculty	1

(d) Who Initiated Changes That "Strengthened" Program

Physical Education Department	19
State	1
Not Specified	2

(e) Who Initiated Changes That Had "No Effect" On Program

Physical Education Department	1
State	1

13. What has been done to counteract attempts to reduce or eliminate a requirement in physical education?

1. Better organized program.
2. Presented a statement to the Educational Policies Committee citing the value of the present program to students and college and pointed out the disadvantages of curtailing or reducing the program.
3. Survey of situation at schools where we feel we have like academic standards.
4. Point out uses of new physical plant to be built for increased physical facilities.
5. Held discussion group on the topics of improving instruction and upgrading the curriculum.
6. Senate committee interview students from all colleges regarding the physical education program.
7. Senate committee visited physical education classes and observed instruction.
8. University senate committee evaluated the place of physical education in the curriculum, time of classes, attitude of students, reasons for excessive changes and drops during semester.

9. Re-evaluate and self-analyze anything on the part of the department of physical education which might contribute to reasons for dropping or reducing the requirements.
10. Orientation in basic needs of the individual.
11. Offer a variety of activities.
12. Increase individual type sports.
13. Provide the administration with studies supporting the required program and other information available at AAHPER.
14. Keep essential data on hand and up to date regarding:
 - a. Evaluation of instruction and instructor.
 - b. Cross-campus invitation of deans and department heads.
 - c. Solicit interviews with exceptional senior students.
 - d. Departmental tours for deans and department heads.
 - e. Equitable grading compatible with university curve.
15. Present written statements of philosophy and memoranda of research evidence to university president, advisory committee and university senate.
16. Discuss program with university colleagues.
17. Do a good job with students and faculty.
18. Establish good rapport on the campus.
19. Do a good job of teaching.
20. Build new facilities.
21. Take all college-wide committee assignments seriously.
22. Addition of a swimming requirement.
23. Better communications between staff members in our department.
24. Initiate a testing program in the required program - stress fitness.
25. Present results of student attitude survey to the total faculty.
26. Have a fine intramural program.
27. Provide facilities for faculty and families.
28. Better enforcement of present requirement and keep exemptions to a minimum.
29. Better supervision and operation of current program.
30. Eliminate military and marching band as exemption weapons.
31. Emphasis in required program has been on teaching the skills and knowledges of carry-over values.
32. University Recreation Association sponsors clubs for future participation in activities taught in the service program.
33. Staff members participated and led in scholarly and cultural and social activities on campus.
34. Public relations approach.
35. Faculty conditioning program.
36. Develop a manual for instructors stating aims and objectives of program, responsibilities of instructors, conduct and grading program, course outline.
37. Film of service program.
38. Increased publicity for program in school paper.

39. Speakers bureau.
40. Provide wider scope in service program courses.
41. Take the initiative in the position that veterans will not be exempt from the PE requirement.
42. Report to the faculty on all aspects of the program-major, athletics, service program and IM.
43. Constant attempt to publicize the needs of youth in area of physical education.
44. Sponsor faculty activity night.
45. Reviewed and reported research studies indicating student attitudes toward PE, required PE, grading PE activity classes.
46. Reported on President's Council on Youth Fitness.
47. Compared US fitness of youth with other countries.
48. Presented pitiful "conditions" of entering males, on basis of basic skills.
49. Cooperate with all student organizations.
50. Screen incoming freshmen for the purpose of classifying into ability groups.
51. Public relations movement directed to faculty as to what we are trying to do.
52. Study status of PE requirements in other schools.
53. Encourage faculty to improve their own physical condition through activity and through discussion on diet and good health.
54. Avoid course titles that feed public criticism.
55. Emphasize overall objectives of physical education.
56. Specific references were made to magazine articles to faculty.
14. Would you say that P.E. has lost or gained prestige since World War II?
 - (a) Number of Institutions That Have Gained Prestige Since World War II 185
 - (b) Number of Institutions That Have Lost Prestige Since World War II 39
 - (c) Number of Institutions That Have Same Prestige Since World War II 49
 - (d) Reasons for Gain in Prestige
 - Added and/or Strengthened Requirement
 - Administration and Faculty Acceptance of Program
 - Improved Caliber of Instruction
 - Increased Number of Staff
 - Addition and/or Improvement of Professional and IM Programs

J. O. Jones, Chairman

CONVENTION PUBLICITY AND HOSPITALITY COMMITTEE

The committee was made up of 27 members. These people were widely scattered over the country and provided a good distributive system for Association news releases.

The pattern of operation for all publicity followed these steps:

News items were prepared at Michigan State University and distributed in quantity lots to the 27 committee members. These folks in turn mailed out the release to a pre-arranged listing of the C.P.E.A. membership. Two such releases were distributed to the membership in preparation for the Cincinnati convention. The last of these was mailed to members of the committee, November 15th.

The chairman of the committee contacted the convention manager, Mr. William Schwarberg, University of Cincinnati, offering his and the services of the committee in any way which would promote the best interest of public relations.

The chairman contacted Mr. J.S. Turner, Executive Vice-President of the Cincinnati Convention and Visitors Bureau, to obtain materials concerning the convention city which could have been circulated to our membership. It was learned that no such materials were available for mailings but were to be provided at the registration desk on Sunday and Monday.

The chairman contacted Mr. Ed. Kennedy of W.K.R.C. Radio in relation to an interview for President C.O. Jackson and President-Elect Ray Snyder. The interviews were taped and were presented on Kennedy's W.K.R.C. programs, Monday, December 28th and Tuesday, December 29th.

Contacts were made with both the Cincinnati Enquirer and The Post and Times Star. Photographers and reporters interviewed and photographed the President, President-Elect, Secretary-Treasurer and the Convention Manager. It is assumed that coverage will be given the convention in these two publications on Tuesday, December 29th, and Wednesday, December 30th.

King J. McCristal, Chairman

Joint Committees

JOINT COMMITTEE ON CO-EDUCATIONAL RELATIONSHIPS

Original Functions of the Committee:

- (a) To study the mutual problems (C.P.E.A. and N.A.P.E.C.W.) in the administration and operation of co-educational classes in college physical education; and
- (b) To report at the next respective annual meetings any recommendations concerning developments in this area.

Developments 1959:

1. Your chairman met with Dr. Helen G. Smith, State College of Washington, Chairman of the N.A.P.E.C.W., Portland, Oregon, last April. Dr. Smith agreed to formulate a code for the Committee which she submitted to me at a later date.

Dr. Smith and I further recommended "Co-educational classes - a statement of philosophy and policy by the Staff, Department of Physical Education, University of California, Los Angeles"* be utilized as a guide by the joint committee (C.P.E.A. and N.A.P.E.C.W.)

Next Steps:

1. The C.P.E.A. to institute a survey to determine specific problems in this area.
2. The C.P.E.A. committee will draw up a code comparable to code submitted by N.A.P.E.C.W. The attempt would be made to resolve and integrate the two codes. (Formulation of a way of working.)
3. Both organizations to further clarify the functions of the joint committee.

Thomas E. McDonough, Chairman

IMPLEMENTATION OF PHYSICAL EDUCATION COMMITTEE

In March, 1959, the Joint Committee met at Portland, Oregon. It was again urged that there should be a follow-up Washington Conference on Physical Education and that definite steps be taken to up-grade the program. At this meeting in Portland, Harold Cordts reported on the "Status of Physical Education Required or Instructional Programs for Men and Women in Four-Year Colleges and Universities of the United States."

A meeting of the Joint Committee is scheduled for April 24, 1960 at the A.A.H.P.E.R. meeting in Miami.

Marvin Allen, Chairman

JOINT COMMITTEE ON PHYSICAL EDUCATION AND ATHLETICS

The College Physical Education Association, the American

* Reprinted from the Journal of Health-Physical Education-Recreation, February, 1955.

Association for Health, Physical Education and Recreation, and the National Collegiate Athletic Association formed a permanent Joint Committee on Physical Education and Athletics in January, 1945. Each of the parent organizations appoints three men to serve on the committee for terms of three years each.

The Joint Committee has considered the idea of a national working conference for collegiate athletic directors for several years. There are no training courses, or separate and distinct areas of knowledge or literature available for the development of athletic directors, and the need for such a national conference has been apparent for some time. The Committee set up the first National Athletic Directors Working Conference for Louisville, Kentucky, March 21-23, 1959. One hundred of the nation's outstanding collegiate athletic directors attended. The Conference was completely financed by the CPEA (\$40.00), NCAA (\$100.00) and AAHPER (\$100.00), and many times they placed their central office staffs at the Committee's disposition. It was a splendid illustration of what can be accomplished when national organizations join in a cooperative venture.

A copy of the proceedings may be obtained from the AAHPER, 1201 Sixteenth St., N.W. Washington 6, D.C. for seventy-five (.75) cents.

A financial report of the funds allotted to the Joint Committee is attached herewith.

L. K. Butler, Chairman

Continuing Committee

CONSTRUCTION AND EQUIPMENT COMMITTEE

This report will constitute essentially an interim report and in no sense is a terminal or completed report. During the last several years this committee has been chaired by Dr. James Long of the University of Toledo. Under his leadership a decision was made to prepare a compilation of representative athletic, physical education, and sport facilities together with descriptions, costs, unique characteristics, etc., which would then be assembled into some kind of publication. It was decided that each member of the committee would solicit the high school athletic association directors of their respective states and ask them to suggest noteworthy facilities. As this project was pursued it became evident that it was ambitious in time, effort and expense and is at this time bogged down in a dilemma of its own making. The committee has been in loose communication one with each other during this year.

In the meantime, it has become evident that several other members of the Association have demonstrated interest, talent, and experience which should be utilized on a committee of this kind and they will be employed in resolving this dilemma whether this project be continued, dropped, or redirected.

To demonstrate that the committee has not been completely dormant, I would call your attention to the exhibit of facilities which we thought

were both significant and representative and which have been on display in the lobby outside the ballroom. The display has materialized primarily through the efforts of Dr. James Loveless of De Pauw University and particularly George Cousins of Indiana University.

Samuel M. Cooper, Chairman

Miscellaneous Reports

NATIONAL CONFERENCE OF ATHLETIC DIRECTORS

L. K. Butler
Oberlin College

The Joint Committee on Physical Education and Athletics sponsored a national conference in Louisville, Kentucky, last March. The three parent organizations of the Committee (CPEA, NCAA and AAHPER) completely financed the general expenses and in many instances, placed their central office staffs at the disposition of the Joint Committee. The College Physical Education Association is to be congratulated for the leadership and active part assumed by the CPEA members and secretary.

The stated purposes of the conference were:

1. Exchange of information and full discussion of difficult problems.
2. Discussion of possible general principles of administration.
3. Listing of unanswered problems and suggestions for future discussion.
4. Publication of results.

The athletic directors were assigned to their choice of area of athletic administration, and each group attempted to formulate guiding principles. The success of the conference was due in no small way to the fine group of analysts, discussion leaders and recorders heading each group. Each participant was sent a list of discussion questions, and some suggested principles a short time prior to the Conference.

The following principles and statements derived by each group are selected and quoted from the proceedings, as published by the American Association for Health, Physical Education and Recreation:

Group 1 General Athletic Administration

Relationship of Institutional and Athletic Objectives and Principles

The development of any set of principles for the administration of intercollegiate athletics should reflect the objectives of both the athletic program and the institution.

Institutional and Faculty Co-ordination

At least a majority of the members of the intercollegiate athletic coaching staff should be members of the academic staff.

Coaches holding academic rank should perform the duties imposed by such rank in the life of the institution.

Athletic personnel should be promoted through the academic ranks only as they qualify according to institutional policy.

Departmental Control

The director of athletics should be directly responsible to the president of the institution in performing his duties as athletic administrator.

There should be an advisory athletic control board. The composition of this board should be predominantly faculty personnel.

The director of athletics should not be a coach in the intercollegiate athletic program.

Financing the Intercollegiate Athletic Program

Intercollegiate athletics should be financed as all other institutionally sponsored activities. This financing should not be based upon, nor related to, gate receipts.

The Grant-In-Aid

The awarding of a grant-in-aid to a student is a valid procedure, based on his athletic ability and on his being a regularly admitted student.

Need should not be considered as a prerequisite to the receiving of a grant-in-aid because of the difficulty in determining need fairly and accurately.

The recipient of a grant-in-aid is obligated to participate in the particular sport for which the grant was given. Failure to participate should mean the loss of the grant.

Once a grant-in-aid is given, it should be continued or awarded again as long as the recipient meets scholastic requirements and is making normal progress towards a degree. A lack of anticipated athletic ability should not terminate the grant-in-aid. Injury should not be a basis for losing a grant.

Aid should be withdrawn under the following circumstances:

- a. If the student is not making normal progress towards a degree,
- b. If the student is on disciplinary probation.

Grants-in-aid should be limited to a fixed number of recipients for each sport and awarded on a yearly basis.

Recruiting

There should be a national uniform code of regulations applied to recruiting procedures.

Control of Coaches

Contractual arrangement between a coach and an institution carries a two-way obligation. Coaches violating contracts by terminating employment at an institution prior to the end of a contract should be required to pay damages of a previously designated amount to the aggrieved institution.

Scheduling

Institutions which are on probation should not be scheduled by other institutions for athletic contests. Contractual arrangements should provide for immediate cancellation of contests when either of the contracting parties is placed on probation. (NOTE) Some members of the group felt that if an institution is placed on probation for football violations, other sports operating under the rules should not be denied competition because of the probation against the institution.

Group 2 Financial Control and Procedures

Budgetary Procedures

The budget is a clear and orderly attempt to estimate the necessary income and expenditures required to conduct the program for a specified period of time.

1. Intercollegiate athletics are an integral part of an institution and should be included in the annual budget of the institution.
2. Since intercollegiate athletics are an integral part of the educational institution, financing of the program should not be entirely dependent upon gate receipts.

Television

It was generally agreed that:

1. Television has had a terrific impact in publicizing college athletics.
2. Nationally televised games did affect attendance at the local level.

It was suggested that perhaps blackouts could be tried, similar to the pattern being used in professional sports.

Group 3 Facilities and Equipment

Control and Use of Facilities

1. The institution and the athletic director have a definite responsibility to develop adequate facilities so that a well-rounded program can be organized and maintained for all students.
2. In the early stages of planning for these facilities, there should be a joint effort by all those concerned with the use of the facilities. This process is necessary to enable architects, engineers, and builders to plan and construct functional facilities.
3. While there is no set pattern for financing, it is recognized that methods of finance such as gate receipts, tax appropriations, alumni contributions, endowments, and student fees may be sources of income for athletic facilities.
4. Where the facilities are used by several related school agencies, one authority should be designated to provide an appropriate and adequate schedule for the use of the facilities by the various agencies.

Group 4 Staff Relationships

The following basic principles were agreed upon by Group 4 as fundamental to all staffs, large or small.

1. Staff meetings should be held at regular intervals.
2. In addition to their primary responsibility, all coaches should work in other phases of the program.
3. Coaches should be interested in the total program and indicate their interest in tangible ways.
4. It is desirable to give coaches the rights and privileges of faculty members in each institution, though it is recognized that the privilege of tenure may not be given when additional adequate compensation is paid therefor.
5. Schedules for all sports should be approved by athletic directors and/or a faculty committee before commitments are made. The department calendar of institutional and department events should be consulted before settling dates.
6. Standard budget policies should be established on recognized budgetary principles. All staff members should be acquainted with these policies and follow them.
7. Staff members should be strongly encouraged to take an active part in all faculty functions, attend faculty meetings, serve on institutional committees, and use every opportunity to enter into faculty life.
8. All staff members should be familiar with rules and regulations of their institution, conference and the NCAA as they pertain to control of intercollegiate athletics.
9. Coaches should be expected to encourage athletes to participate in more than one sport, providing that the academic welfare, personal interests, and college commitments of the athletes are not endangered.

Group 5 Public Relations

Public Relations in the field of athletics should aim to provide communication resulting in goodwill toward an athletic program that serves as an identification and rallying point for students, faculty, alumni, and friends. This is a program that is constantly giving public demonstrations of wholesome, interesting, collegiate competition.

PRINCIPLES

Informative Principles

It is important that all information be properly distributed to interested groups. These groups are identified as students, faculty, alumni, and the general public.

Students

1. The importance of the student in the athletic picture should be recognized and enhanced by whatever means seem desirable.
2. Athletes should not be segregated on the campus.

3. Athletes should have impressed upon them their role as ambassadors.
4. Students should be given preferential seating locations at games.

Faculty

1. Faculty communication should be utilized for information and orientation.
2. Personal communication with faculty members should be a primary goal.
3. Attendance at faculty meetings and other university functions should be stressed.
4. Attempts should be made to get a key member of each department to have some part in the total school program, i.e., serve on committees, etc.
5. An athletics staff that emphasizes attention to scholastic endeavor through counseling, grades, enhancement program of athletes, etc., will win faculty respect.
6. Athletics facilities and instruction should be made available to faculty and families when feasible.
7. Arrangements for absences on athletic trips should be made far enough in advance to minimize teacher-student friction.

College and Professional Sports

The relationship of intercollegiate and professional sports should be carefully studied and the immediate and long-range effects considered. Policy statements by NCAA or similar bodies would aid college presidents in presenting a united front regarding the situation.

With no malice toward professional sports, it is suggested that any connection with professional sports by staff or institution be considered in the light of the welfare of the student, the college, and the intercollegiate athletic program.

The lifeblood of intercollegiate athletics is the collegiate atmosphere, and all efforts should be made to promote this atmosphere, which is the essence and soul of the program.

Group 6 Management of Athletic Events

Since intercollegiate athletics are an integral part of a college or university educational experience, the management of athletic contests should always be in conformity with the principles of the broad, general field of education and in the highest tradition of the field of athletics itself. As the chief administrator of the program of intercollegiate athletics, the director of athletics is ultimately responsible for the conduct of the program according to such principles and traditions.

Group 6 tried to keep in mind constantly the principle that, no matter how important or unimportant the gate receipts, the athletic program is for the good and welfare of the college and university students. It is a part of their education, and must be conducted along educationally desirable lines.

Evaluation

There is no question but that the over-all response to this first National Athletic Directors Working Conference was extremely favorable. Everyone felt it was worthwhile individually, and indicated unanimously that another conference should be held at some other place and time.

Several topics were suggested as being worthy of further study by a future workshop on a regional or national basis. In some degree of preference, a few suggestions were: a re-emphasis on stating aims and objectives of athletic programs for better public understanding; the need factor in grants-in-aid; standards of admission in relation to athletic scholarships; letters of intent; recruiting of foreign athletes; red-shirting; financing athletic scholarships; and the varying responsibilities of the director of athletics to his faculty and to his conference.

In summary, it would appear that the purposes set forth for this conference have been well met. Certainly, the hopes for a helpful exchange of information, a full discussion of athletic problems, and suggestions for future workshops have been unquestionably achieved. It may be that the most difficult part of the whole project will be the translation of these experiences at Louisville into stated principles of administration for the benefit of those unable to be present.

The three sponsoring organizations have supported this conference as part of their effort to encourage the professional development of directors of athletics. An adherence to this theme was indicated by the whole tone of the program, from the keynote speech by Dr. Kelly Thompson to the final summaries by the group recorders. The opinions expressed by the participants unanimously reflected the feeling that some real professional growth was experienced at this conference. It is to be hoped that the success of this conference will encourage the planning of many more such meetings designed to maintain and improve the professional caliber of the work performed by directors of athletics throughout the United States.

* * * * *

All of the above statements are quoted from the Report of the Working Conference. A complete copy of the proceedings may be obtained from the American Association for Health, Physical Education and Recreation, 1201 Sixteenth Street, N.W., Washington 6, D.C., at a price of 75¢.

In general, the Athletic Directors National Conference at Louisville was a good beginning. It is possible for athletic directors to sit down together and discuss difficult problems. They will even agree on certain general principles, but it is difficult for them to take hold of the basic problem, namely, is the real purpose of athletics educational or promotional? The fringes are nibbled at and perhaps the problem is so complex that seeking marginal solutions is the best method of attack.

The problem is not what to do, but how to proceed. The reason for the problems in athletics is well known, and solutions have been

advocated for many, many years. Let me list some of the suggestions gleaned from NCAA proceedings dated over 50 years ago:

"Athletics for all — not a selected few"	1909
Limitation of schedules	1907
Control of intercollegiate athletics in hands of faculty.	1909
Athletics financed by college and not by gate receipts.	1909
Coaches made regular full-time faculty members	1905
Professionalism, subsidizing, proselyting, lowering educational standards. One example, "The father of one boy in Brooklyn boasted that his boy got offers from 43 different institutions"	1909

The physical education leaders have suggested various reforms since the start of intercollegiate athletics. Only a few years ago at the CPEA meeting in Columbus, Harry Scott made a basic point. He stated that "if athletics cannot be defended because of its entertainment, money-making or propaganda values, (and he proved that it could not be so defended), it must be justified on the basis of its contribution to the educational goals of the college." (Teachers College Record, Vol. 58, No. 1, Oct. 1956, pages 29-37).

In conclusion, I would like to suggest a few simple things that may nudge athletics down the long road toward the realization of its great potential.

First. Less separation between physical education and athletics, and decreased compartmentalization in all education.

Second. A clear statement of purpose of athletics by each institution.

Third. A slow, gradual shifting of athletic practice to conform with "purpose."

Athletic directors are realistic people. They are willing, and even eager, to work toward educational athletics, providing they have the enthusiastic support of faculty, administration, and alumni. It is also easier if groups of colleges move together. The important thing is to start. The future leaders in education and athletics (and even alumni and "public") are being trained in our programs today.

MATERIALS RELATING TO A PHYSICAL EDUCATION, SPORTS and ATHLETIC FACILITIES STUDY AT THE UNIVERSITY OF ILLINOIS

*H. E. KENNEY
University of Illinois*

INTRODUCTION

The University of Illinois, like most state universities, is growing very rapidly. The Building Program Committee at the University is

concerned about the maintenance of open fields and the building of sports, recreation, and physical education facilities to take care of the expanding enrollment.

The Building Program Committee has searched for standards to serve as guides in planning for all aspects of student life. The Physical Education Department was unable to provide our Building Program Committee with the kinds of physical education facilities standards they require.

We were asked by the Building Program Committee at the University of Illinois to provide standards in terms of square feet per student for all types of physical education, sports, athletic, and recreation space. Not only did the Building Program Committee ask the College of Physical Education for standards in terms of square feet per student, but they wanted these standards broken down into different types of areas (see page 202), and they also wanted evidence to support these standards.

A committee for the College of Physical Education at our University has embarked upon a study to determine what standards should be followed in our building program. This study has not yet been completed but we expect to finish before June of 1960. This paper consists of some of the preliminary materials that relate to physical education facilities problems at any university. All references to the specific problem at the University of Illinois have been deleted. If permitted by the Program Committee of the College Physical Education Association, a complete report will be made at our next meeting in 1960.

GENERAL COMMENTS & DEFINITIONS

1. Because of the impracticality of carrying on a physical education and recreation program for women in the outdoors during inclement weather and the winter season, all outdoor teaching stations "B" type (see page 201) for women must be provided with "A" type (see page 201) teaching space (indoor). This factor causes the space needs for women to be greater than that needed for men.
2. It is believed by the committee making this study that varsity sports practice and contests and much intramural activity can, without loss of efficiency, be carried on in "C" type (see page 201) area since the "ten-minute walking distance" is not a factor in programs of this type.
3. If the University provides adequate "A" and "B" type space to meet the recreation and exercise needs of students, there will be more than adequate space of those types for curricular work in basic instruction (service program) and professional education in physical education and recreation.

4. TEACHING STATION is defined as a group physical activity area adjacent to lockers and showers, within ten-minutes walking distance of academic class rooms, and of adequate size for the instruction of 20-40 students. (20-40 student stations). Teaching stations vary in size with the type of activity conducted.

STUDENT STATION means the space required to provide adequate instruction for one student.

TEN-MINUTE WALKING DISTANCE relates to both time element and/or distance. In other words, the ten-minute time is the major factor involved, not merely the walking factor. If more rapid means of movement of students can be devised, it will broaden the concept of "A" type and "B" type space as defined in the standards section in this report.

5. This report relates only to physical activity areas and does not include such space as academic classrooms, offices or service space.

ASSUMPTIONS

We assume that:

1. Space problems should not dictate the program but that facilities are to be made available so that appropriate courses and recreational activities may be offered to meet student needs and that students will be permitted some choice in their physical education and intramural activities.
2. A university should make a contribution to national fitness and fitness education.
3. Participation in sports and physical recreation provides healthy emotional release essential to the welfare of students.
4. The greater needs for space for this program stems from undergraduate enrollments, but that graduate students and staff use physical education and recreation facilities to some degree. This use is estimated to be 25 per cent as extensive as that of undergraduates.
5. The peak demand for sports, athletic, and recreation facilities occurs after classes and in the late afternoon and evening and that if physical education is not required as part of the curricula of all students, the need for facilities of this type may be greater.

STANDARDS

AREAS (INDOOR AND OUTDOOR) FOR PHYSICAL EDUCATION
INTRAMURAL SPORTS, RECREATION, AND VARSITY ATHLETICS

For purposes of reference these areas are classified as follows:

TYPE A — Indoor Teaching Stations

- Including: (a) Gym floors, mat areas, swimming pools, courts, etc.
(b) Adjacent to lockers and showers and within ten-minute walking distance of academic classrooms.

Uses: Primary - Instructional classes

Other Uses - Varsity sports, intramural sports, informal sports participation, student and faculty recreation, etc.

Estimate of space needs of this type area - * ? Sq. Ft.
per student (Total undergraduate enrollment)

TYPE B — Outdoor Teaching Stations

- Including: (a) Sports fields of all types
(b) Adjacent to lockers and showers and within ten-minute walking distance of academic classrooms.

Uses: Primary - Instructional classes

Other Uses - Varsity sports, intramural sports, informal sports participation, student and faculty recreation, etc.

Estimate of space needs of this type area - * ? Sq. Ft.
per student (Total undergraduate enrollment)

TYPE C — Sports Fields and Buildings, Intramural and General Outdoor Recreation Areas

- Including: (a) Playing fields and athletic buildings of all types; softball diamonds, tennis courts, arenas, field houses, etc.
(b) Too far removed from general student lockers, showers, living quarters and academic buildings for use as teaching stations.
(c) Maximum distance from major residence areas—one mile.

Uses: Intramural sports, varsity sports, informal sports participation, student and faculty recreation, etc.

Estimate of space needs of this type area - * ? Sq. Ft.
per student (Total undergraduate enrollment)

TYPE D - Informal Recreation Areas

*We are not prepared at this time to state these standards. We hope to be able to establish defensible standards when this study is completed.

Including: (a) Illini Grove and similar type areas

(b) Maximum distance from residence areas - 1-1/2 miles.

Uses: Picnics, outing activities, including outdoor cookery, evening songfests, storytelling, etc.

Estimate of space needs of this type area - * ? Sq. Ft.

TYPE E — Off Campus Outdoor Education, Camping and Recreation Areas

Including: (a) Outdoor camping and outdoor education center, off-campus golf course, University country club, etc.

(b) Maximum distance from heart of the campus - 25 miles.

Uses: Over-night camping, picnics, outing activities, camping demonstrations, golf, archery, boating, canoeing, outdoor swimming, etc.

Estimate of space needs of this type area - * ? Sq. Ft.

BREAK-down of standards

TYPE A, B, C

TYPE A

A1 - Indoor teaching stations including large gymnasium areas with relatively high (22 ft. minimum) ceilings.

Uses: Basketball, badminton, gymnastics, apparatus, volleyball, etc.

A2 - Indoor teaching stations with relatively low (12 ft. minimum) ceilings.

Uses: Combatives, correctives, dancing, weight lifting, etc.

A3 - Swimming and diving pools.

TYPE B

B1 - Sodded areas for general outdoor play.

Uses: Soccer, touch football, softball, etc.

B2 - Court type areas.

Uses: Tennis, volleyball, flicker ball, etc.

B3 - Specialized athletic areas

Uses: Track and field, baseball, archery, varsity football, golf, camping demonstrations, etc.

B4 - Swimming pools.

*We are not prepared at this time to state these standards. We hope to be able to establish defensible standards when this study is completed.

TYPE C

- C1 - Sodded areas for general outdoor play
Uses: Soccer, touch football, softball, etc.
- C2 - Court type areas
Uses: Tennis, volleyball, flicker ball, etc.
- C3 - Specialized athletic areas
Uses: Track and field, baseball, archery, varsity football, golf, camping demonstrations, etc.
- C4 - Swimming pools
- C5 - Sports and Intramural buildings providing lockers, showers, play space, office space, lounge rooms, etc.

COMMENTS ON THE PROBLEMS OF DEVELOPING STANDARDS

Graduate Student and Faculty Participation. It is estimated by observers that graduate students participate in sports and physical recreation approximately 25 per cent as extensively as undergraduates. This assumes the existence of an attractive program designed with their needs in mind, or participation is likely to be less. If provision is made for faculty use of recreation facilities, lockers, and showers, some participation can be expected from even the older faculty.

In the standards outlined in this report, faculty participation has been given consideration and will be provided for if the suggested activity areas are maintained. If the population of the university community is made up of large numbers of non-teaching, unmarried graduate students, the upper range of each standard must be considered as the guide (see paragraph below). If the University is mainly an undergraduate institution a lower point might be selected as a basis for planning.

Basic Reasons for Range in Standards. The standards listed in the final report will indicate a range in requirements of square feet per student. It is impossible in standards of this type to establish a square-feet-per-student figure that will not vary somewhat because of specific circumstances and situational factors such as:

1. The philosophy of the institution regarding its responsibility in meeting the physical and emotional needs of university students while they are members of the campus community.
2. Convictions of the institution regarding the educational importance of knowledge and skill achieved by students through their physical education.
3. The amount of participation in physical play activities of graduate students, staff and faculty.
4. Differences in climate and topography, and the availability of natural recreation areas, etc.
5. The relationship between "B" and "A" space is important. As outdoor "B" type space is reduced below recommended standards, indoor "A" type space needs become greater.

SOME CONSIDERATIONS REGARDING SPACE NEEDS

1. Recreation and Intramural Use. The nearer a play area is to lockers, showers, and housing, the more serviceable the area is to student programs. The man-hour use of "B" type areas becomes less extensive as distances from residence halls and student housing areas become greater. This is especially true of informal play-pick-up softball teams, sunbathing, playing catch, batting fly balls, throwing and catching baseballs, playing improvised games, playing football, etc.

Organized, planned and directed sports programs, of course, can be carried on almost as successfully on "C" type space as on "B" type.

2. Difficulties in Use of "B" Area During Inclement Weather. In a climate such as that of the Mid-Western states "A" (indoor) type area is of greater value to student programs than "B" (outdoor) type space because of the long winters when "B" space is largely out of use. However, during nice weather in the spring and fall "B" space is intensively used for informal activity.

The complete loss of "B" type space will not eliminate class instruction in physical education, professional or service, but it will seriously handicap informal play programs.

3. The Use of Malls for Informal Play and for Outdoor Teaching Stations. It is recommended that certain types of sports facilities be developed on malls so that these areas may serve both to beautify the campus and to provide "heart of the campus" "B" type play space.
4. Type "A" space could be greatly supplemented by providing exercise equipment such as mats, weights, stallbars, etc, in rooms designated for exercise purposes in large student residence halls and student-staff apartment buildings. Similarly, small outdoor areas for recreation should be made available in the vicinity of these buildings for informal-type recreation activities.
5. Possible Changes Resulting from Research in Architecture. As new materials of construction are developed, it is conceivable that some methods may be devised to cover outdoor areas and make them available year-round for outdoor-type physical activities. This would change the concept of standards since it would affect considerably the amount of conventional-type indoor and outdoor space required for physical education, intramural sports and athletics.

ROLL OF MEMBERS — 1960
(Corrected to April 1, 1960)

**Attended*

1959 Convention (1) Past President (2) Past Secretary-Treasurer

HONORARY MEMBERS

Alderson, Curtis J., Ed.D.	University of Texas, Austin, Texas (1950-1959)
Altman, George J., M.Ed.	202 Belmont, Los Gatos, California (1936-1955)
Bilheimer, C. E., M.Ed.	Gettysburg College, Gettysburg, Pennsylvania (1930-1954)
Bohler, J. Fred, B.S.	State College of Washington, Pullman, Washington (1929-1950)
Brown, Hubert E., Ph.D.	16516 Camellia Terrace, Los Gatos, California (1947-1958)
Campbell, Walter, M.Ed.	University of Rochester, Rochester, New York (1928-1954)
Carpenter, Percy R., B.A.	Worcester Polytechnic Institute, Wor- cester, Massachusetts (1912-1952)
Clapp, Raymond G., M.D.	1200 S. College Avenue, Fort Collins, Colorado (1906-1945)
Fetzer, Robert A., M.A.	Morehead Building, Chapel Hill, North Carolina (1925-1952)
Gauthier, George E., B.S.	Ohio Wesleyan University, Delaware, Ohio (1925-1955)
Hansen, Canute, D.D.S.	147-41-38th Ave., Flushing, N.Y. (1926- 1955)
House, Howard H., Ph.D.	Box 203, Asotin, Washington (1932- 1955)
Kiphuth, Robert J.H., B.S.	Yale University, New Haven, Conn. (1932-1959)
Kirkpatrick, T. Bruce, M.A.	249 Washington Ave., Kingston, N.Y. (1932-1948)
(1) Livingston, Walter J., B.S.	333-12th Ave., Indian Rocks Beach, Fla. (1922-1952)
Locke, Edwin A., M.D.	Wilton, N.H., (1937-1946)
(1) Luehring, Fred W., Ph.D.	314 N. Chester Rd, Swarthmore, Pa. (1920-1951)
(1) Marsh, Allison W., M.Ed.	62 Hillcrest Place, Amherst, Mass. (1922-1958)
Masley, A.L., M.A.	University of Wisconsin, Madison, Wis. (1945-1960)

- (1) Metcalf, Thomas N., M.A. 1208 San Miguel, Santa Barbara, Calif.
(2) (1920-1956)
- (1) Mitchell, Elmer D., Ph.D. University of Michigan, Ann Arbor,
Michigan, (1931-1958)
- Nash, Jay B., Ph.D. 40 East 10th St., New York, N. Y.
(1927-1952)
- (1) Nichols, John H. M.D. Oberlin College, Oberlin, Ohio (1918-
1955)
- Patty, Willard W., Ph.D. Indiana University, Bloomington, Ind.
(1949-1958)
- (1) Prettyman, Albert I., B.P.E. Hamilton College, Clinton, N.Y. (1920-
1949)
- Raabe, Howard W., M.S. 1148 S.E. Powell Blvd., Portland, Ore.
(1950-1957)
- (1) Schott, Carl P., Ph.D. Pennsylvania State University, Univer-
sity Park, Pa. (1930-1952)
- (1) Scott, Harry A., Ph.D. Box 4762, Carmel, California, (1923-
1959)
- (2) Sprankle, Dale R., M.A. 204 N. Ingham, Albion, Michigan (1957-
1959)
- Stagg, Amos A., Sr., B.A. 127 W. Encled Ave., Stockton, Califor-
nia (1920-1947)
- Swain, Leslie E., M.A. Tree Tops, Craigville, Massachusetts
(1927-1943)
- Toomey, Irving F., B.S. University of California, Davis, Cali-
fornia (1936-1957)
- Whitaker, Berry M., B.A. University of Texas, Austin, Texas
(1949-1959)
- (1) Williams, Jesse R., M.D. Box 656, Carmel, California (1920-1946)
- (1) Young, C. V. P., B.A. Cornell University, Ithaca, New York
(1920-1946)
- Young, Ralph H., B.S. 635 Hillcrest Ave., East Lansing, Mich-
igan (1924-1954)

ACTIVE MEMBERS

— A —

- Abraham, Joseph N., M.S. Hobart College, Geneva, N. Y. (1955)
- (2) Adams, L. Carroll, Ed.D. Columbia University, New York, New
York (1937)
- Addison, Robert A., M.A. Doane College, Crete, Nebraska (1953)
- Alexander, Louis A., M.A. University of Rochester, Rochester,
New York (1931)
- Allen, Ernest Marvin, Jr., M.A. University of North Carolina, Chapel
Hill, North Carolina (1947)
- Allen, Ross L., Ph.D. State Teachers College, Cortland, New
York (1955)

- * Alley, Louis E., Ph.D. University of Iowa, Iowa City, Iowa (1954)
- Anderson, Ernest W., M.Ed. Augsburg College, Minneapolis, Minn. (1956)
- *Anderson, George F., Ed.D. AAHPER - 1201 16th St., N.W. Washington, D.C. (1954)
- Andrews, Paul M., M.Ed. Texas A and M College, College Station, Texas (1957)
- Antonacci, Robert J., Ed.D. School City Service, Gary, Ind. (1949)
- Appleton, Lloyd D., M.A. United States Military Academy, West Point, N.Y. (1947)
- *Arce, William B., Ed.D. Claremont-Harvey Mudd Colleges, Claremont, Calif. (1958)
- Arnett, Glenn William, M.S. San Fernando Valley State College, Northridge, Calif. (1958)
- *Ashbrook, Willard P., Ph.D. Ohio State University, Columbus, Ohio (1929)
- *Ashton, Norman J., M.S. 621 Cummings, Apt. 412, Ottawa, Ont., Canada (1960)
- *Asprey, Gene M., Ph.D. State University of Iowa, Iowa City, Iowa, (1960)

- B -

- Bachman, John C., M.S. Chico State College, Chico, Calif. (1958)
- Baley, James A., Ph.D. Mississippi Southern College, Hattiesburg, Miss. (1954)
- Ballenger, Frank, M.A. Kent State University, Kent, Ohio (1949)
- Balquist, John W., M.A. Columbia University, New York, N.Y. (1947)
- Bank, Theodore P., M.A. Athletic Institute, 209 S. State St., Chicago, Ill. (1949)
- *Baptista, Robert C., M.Ed. Wheaton College, Wheaton, Ill. (1960)
- Barlow, Thomas E., B.A. University of Texas, Austin, Texas (1953)
- Barr, Alfred R., M.A. Southern Methodist University, Dallas, Texas (1948)
- Barr, J. Shober, M.A. Franklin and Marshall College, Lancaster, Pa. (1954)
- Barrow, Harold M., Ed.D. Wake Forest College, Winston-Salem, N.C. (1949)
- Barrow, Loyd M., Ed.D. New Haven State Teachers College, New Haven, Conn. (1957)
- Bartelma, David C., Ed.D. University of Colorado, Boulder, Colo. (1948)
- Bartholomew, Clarence, Ed.D. Gettysburg College, Gettysburg, Pa. (1959)

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| Bauer, Emory G., M.A. | Valparaiso University, Valparaiso, Ind. (1956) |
| Baughman, Willis J., Ph.D. | University of Alabama, University, Ala. (1948) |
| Bearden, Frank W., Ed.D. | The Rice Institute, Houston, Texas (1952) |
| Beatty, Harold J., M.A. | Fresno State College, Fresno, Calif. (1957) |
| Beck, Eugene E., Ph.D. | Henderson State Teachers College, Arkadelphia, Ark. (1957) |
| Begelman, Jack D., Ph.D. | Hunter College, Bronx, N.Y. (1951) |
| Begenau, Don, M.A. | Queens College, Flushing, N.Y. (1956) |
| *Bennett, Bruce L., Ph.D. | Ohio State University, Columbus, Ohio (1948) |
| Bennett, Norman, B.S. | Ferris Institute, Big Rapids, Mich. (1956) |
| Benson, David W., M.S. | University of California, Los Angeles, Calif. (1959) |
| Benton, Carl W., Ed.D. | San Diego State College, San Diego, Calif. (1957) |
| *Berrafato, Peter R., B.S. | University of Illinois, Navy Pier, Chicago, Ill. (1948) |
| Bibler, Ralph E., M.A. | Oberlin College, Oberlin, Ohio (1949) |
| Bierhaus, Frederick W., Ed.D. | University of Colorado, Boulder, Colo. (1957) |
| Billings, Ed S., M.S. | Wayland Baptist College, Plainview, Texas (1958) |
| *Bischoff, David Canby, Ph.D. | University of Massachusetts, Amherst, Mass. (1958) |
| Blesh, T. Erwin, Ph.D. | Yale University, New Haven, Conn. (1951) |
| Blum, Sylvester J., M.Ed. | Bucknell University, Lewisburg, Pa. (1947) |
| Blyth, Carl S., Ph.D. | University of North Carolina, Chapel Hill, N.C. (1958) |
| *Bookwalter, Karl W., Ed.D. | Indiana University, Bloomington, Ind. (1937) |
| Boring, Warren J., Ed.D. | Long Beach State College, Long Beach Calif. (1953) |
| Bos, Ronald R., M.A. | Ithaca College, Ithaca, N.Y. (1959) |
| Bovard, Alan J., A.B. | Michigan College of Mining & Technology, Houghton, Mich. (1956) |
| Boycheff, Kooman, Ph.D. | University of California, Berkeley, Calif. (1949) |
| Boydston, Donald N., Ed.D. | Southern Illinois University, Carbondale, Ill. (1951) |
| Brace, David K., Ph.D. | University of Texas, Austin, Texas (1924) |

- Brady, George F., Ph.D. University of Tennessee, Knoxville, Tenn. (1955)
- Brightwell, D. Shelby, M.S. University of Kansas City, Kansas City, Mo. (1959)
- Brinley, Eldon D., Ed.D. Texas College of Arts and Industries Kingsville, Texas (1943)
- Brissman, Leroy C., M.Ed. Augustana College, Rock Island, Ill. (1950)
- Brownell, Clifford L., Ph.D. Teachers College, Columbia University, New York, N. Y. (1929)
- *Browning, Wallace E., Kansas State Teachers College, Emporia, Kan. (1958)
- Bruce, Robert M., M.Ed. United States Military Academy, West Point, N.Y. (1949)
- Brumbach, Wayne B., Ph.D. University of Oregon, Eugene, Ore. (1953)
- Bucher, Charles A., Ed.D. New York University, New York, N.Y. (1953)
- Bugge, Elwyn, B.A. Stanford University, Stanford, Calif. (1957)
- Bullock, James E., M.A. Williams College, Williamstown, Mass. (1935)
- Burke, Roger K., Ph.D. Occidental College, Los Angeles, Calif. (1958)
- Burrus, Harry C., Jr., Ed.D. Washington University, St. Louis, Mo. (1948)
- *Butler, Lysle K., Ph.D. Oberlin College, Oberlin, Ohio (1930)
- Butona, Henry A., M.A. American International College, Springfield, Mass. (1948)

— C —

- Caldwell, Stratton F., M.S. University of California, Los Angeles, Calif. (1960)
- *Cameron, Peter J., M.S. 132 - 105th St., Saskatoon, Saskatchewan, Canada (1960)
- Campbell, William R., Dip. St. Lukes College, Exeter, England (1959)
- Capen, Edward K., Ph.D. University of Tennessee, Knoxville, Tenn. (1956)
- Chaffee, Clarence C., M.A. Williams College, Williamstown, Mass. (1938)
- Chellman John, Ed.D. University of Alabama, University, Ala. (1957)
- Cherry, H. Spurgeon, M.A. University of Florida, Gainesville, Fla. (1951)
- Chrouser, Harvey C., M.A. Wheaton College, Wheaton, Ill. (1953)

- Cieurzo, Paul F., M.A. University of Rhode Island, Kingston, R.I. (1939)
- *Clark, James R., Ph.D. Iowa State Teachers College, Cedar Falls, Iowa (1957)
- Clarke, H. Harrison, Ed.D. University of Oregon, Eugene, Ore. (1931)
- Clipson, William F., Ed.D. Troy State College, Troy, Ala. (1956)
- Cochrane, Cornelius R.P., M.A. Johns Hopkins University, Baltimore, Maryland (1954)
- Coder, Alden C., Ed.D. Montclair State Teachers College, Montclair, N.J. (1958)
- Conger, Ray M., M.A. Pennsylvania State University, University Park, Penn. (1956)
- Conroy, John J., Ed.D. Princeton University, Princeton, N.J. (1949)
- *Cooper, George F., Jr., M.A. Emory University, Emory, Ga. (1950)
- Cooper, John M., Ed.D. University of Southern California, Los Angeles, Calif. (1954)
- *Cooper, Samuel M., Ed.D. Bowling Green State University, Bowling Green, Ohio (1953)
- Corbin, Hayman D., Ph.D. State Teachers College, Lock Haven, Pennsylvania (1948)
- *Cordts, Harold J., Ed.D. State Teachers College, Frostburg, Md. (1958)
- (1) Cornwell, Oliver K., Ed.D. University of North Carolina, Chapel Hill, N.C. (1931)
- Costa, Fleix T., M.A. 540 W. 120th St., New York, N.Y. (1960)
- Costello, Richard A., M.S. Gorham State Teachers College, Gorham, Me. (1956)
- *Cousins, George F., D.P.E. Indiana University, Bloomington, Ind. (1955)
- *Cowell, Charles C., Ph.D. Purdue University, Lafayette, Ind. (1947)
- Cratty, Bryant J., M.S. University of California, Los Angeles, Calif. (1958)
- Creswell, William H., Jr., Ed.D. AAHPER - 1201 16th St., N.W., Washington, D.C. (1958)
- *Crocker, Edward A., B.S. Massachusetts Institute of Technology, Cambridge, Mass. (1960)
- Crowe, Walter C., Ed.D. Long Beach State College, Long Beach, Calif. (1957)
- Cureton, Thomas K., Ph.D. University of Illinois, Champaign, Ill. (1929)
- Cutler, Russell K., M.S. University of Washington, Seattle, Washington (1955)
- Cyphers, Vincent A., M.A. Colorado State College, Greeley, Colo. (1957)

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| Dales, George G., M.A. | Western Michigan College, Kalamazoo, Mich. (1956) |
| Damron, Clarence F., P.E.D. | University of Florida, Gainesville, Fla. (1955) |
| (1) Daniels, Arthur S., Ed.D. | Indiana University, Bloomington, Ind. (1941) |
| Daniels, Norman J., M.A. | Wesleyan University, Middletown, Conn. (1958) |
| Dauer, Victor P., Ph.D. | State College of Washington, Pullman Washington (1958) |
| *Daugherty, John B., Ph.D. | Indiana University, Bloomington, Ind. (1953) |
| Davies, Joseph E., B.S. | Colorado School of Mines, Golden, Colo. (1959) |
| (1) Davis, Elwood C., Ph.D. | University of Southern California, Los Angeles, Calif. (1931) |
| Davis, Jack F., Ed.D. | Florida State University, Tallahassee, Fla. (1957) |
| Davis, Jennings, Jr., Ed.D. | David Lipscomb College, Nashville, Tenn. (1955) |
| Davis, William D., M.A. | Queens College, Flushing, N.Y. (1956) |
| *Delagak, Ali | Kansas State Teachers College, Emporia, Kan. (1960) |
| Dellastatious, Joseph W., M.S. | The Citadel College, Charleston, S.C. (1956) |
| DeLotto, Marcel J., Ph.D. | Long Beach State College, Long Beach, Calif. (1958) |
| Denny, Arthur C., M.A. | Lawrence College, Appleton, Wis. (1935) |
| Derr, Paul H., M.A. | North Carolina State College, Raleigh, N.C. (1946) |
| Dickson, Joseph F., Ph.D. | Eastern New Mexico University, Portales, N.M. (1956) |
| Dioguardi, William P., M.S. | Montclair State College, Upper Montclair, N.J. (1958) |
| DiSpirito, Robert G., M.A. | University of Bridgeport, Bridgeport, Conn. (1958) |
| Dodson, Nathan T., P.E.D. | Wake Forest College, Winston-Salem, N.C. (1958) |
| Dolat, Bernard W., M.A. | Westbury Public Schools, Westbury, N.Y. (1958) |
| *Donnelly, Richard J., Ph.D. | University of Minnesota, Minneapolis, Minn. (1953) |
| Doscher, Nathan, Ph.D. | Brooklyn College, Brooklyn, N. Y. (1956) |
| Doubenmier, J.S., M.A. | Colorado State College, Greeley, Colo. (1949) |

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| Dunbar, Henry F., Jr.,
Ph.D. | Amherst College, Amherst, Mass.
(1949) |
| Duncan, Raymond O., Ed.D. | University of West Virginia, Morgantown, W. Va. (1953) |
| Durenberger, George G.,
P.E.D. | St. Johns University, Collegeville, Minn. (1958) |
| Dyck, Paul B., M.A. | Virginia Polytechnic Inst., Blacksburg, Va. (1946) |
| — E — | |
| Eberhardt, W.C., M.A. | St. Louis University, St. Louis, Mo. (1956) |
| Eckard, Roland J., M.A. | State University Teachers College, Cortland, N.Y. (1958) |
| Egstrom, Glen H., M.S. | University of California, Los Angeles, Calif. (1958) |
| *Eick, William F., Ed.D. | University of Oklahoma, Norman, Okla. (1960) |
| *Elbel, Edwin R., Ph.D. | University of Kansas, Lawrence, Kan. (1956) |
| Elkow, Joseph D., Ph.D. | Brooklyn College, Brooklyn, N. Y. (1956) |
| Emmerich, James C., B.S. | South Dakota State College, Brookings, S.D. (1957) |
| Endwright, John R., M.S. | Indiana University, Bloomington, Ind. (1957) |
| *Erdmann, Charles P., M.A. | DePauw University, Greencastle, Ind. (1949) |
| *Erickson, Carl E., Ed.D. | Kent State University, Kent, Ohio (1954) |
| Ersing, Walter F., M.A. | Ohio State University, Columbus, Ohio (1956) |
| Ertell, Newman H.,
M.A. | Wayne State University, Detroit, Mich. (1955) |
| Esslinger, Arthur A., Ph.D. | University of Oregon, Eugene, Ore. (1947) |
| *Evans, Harold M., B.P.E. | Dartmouth College, Hanover, N.H. (1941) |
| Evans, Thomas, M.S. | Kansas State College, Manhattan, Kan. (1951) |
| *Eyler, Marvin H., Ph.D. | University of Maryland, College Park, Md. (1956) |
| — F — | |
| Fait, Hollis, Ph.D. | University of Connecticut, Storrs, Conn. (1953) |
| *Fall, Charles R., Ed.D. | University of Buffalo, Buffalo, N.Y. (1948) |
| *Fallon, Thomas W., Ed.D. | Notre Dame University, South Bend, Ind. (1948) |

Faria, Irvin E., M.A.	Sacramento State College, Sacramento, Calif. (1959)
Faulkner, John A., M.S.	University of Western Ontario, London, Ontario, Canada (1957)
Feld, Allen A., M.S.	Queens College, Flushing, N.Y. (1954)
Fenstermacher, William R., M.A.	George Williams College, Chicago, Ill. (1949)
Fessenden, Douglas A., Ed.D.	San Francisco State College, San Francisco, Calif. (1958)
*Field, David A., Ed.D.	University of Bridgeport, Bridgeport, Conn. (1951)
Finch, Ronald W., M.A.	Central Michigan College, Mt. Pleasant, Mich. (1947)
*Fischer, Julius A., Jr., M.A.	Kent State University, Kent, Ohio (1951)
Flanagan, Lance, M.A.	University of California, Berkeley, Calif. (1956)
*Fletcher, Howard, M.S.	Northern Illinois University, DeKalb, Ill. (1960)
Florio, Aurelio E., Ed.D.	University of Illinois, Champaign, Ill. (1948)
Flory, Clarence M., Ed.D.	Tarleton State College, Stephenville, Texas (1958)
Flowers, Hubert A., M.A.	State Teachers College, Florence, Ala. (1948)
*Fogg, Sherman P., M.Ed.	Pennsylvania State University, Uni- versity Park, Pa. (1953)
Foglia, Guido F., M.A.	Queens College, Flushing, N.Y. (1954)
*Fordham, Sheldon L., B.S.	University of Illinois, Navy Pier, Chicago, Ill. (1948)
*Fort, Robert C., M.A.	University of Dayton, Dayton, Ohio (1960)
*Fourier, Arthur E., Ph.D.	University of South Carolina, Colum- bia, S.C. (1951)
Fraleigh, Warren P., Ph.D.	San Jose State College, San Jose, Calif. (1955)
*Fraleigh, Lester M., Ph.D.	University of Maryland, College Park, Md. (1950)
Frazier, Garland, M.Ed.	Wabash College, Crawfordsville, Ind. (1956)
Fredricks, John W., Ed.D.	University of Southern California, Los Angeles, Calif. (1934)
Friedman, Benny, B.A.	Brandeis University, Waltham, Mass. (1956)
*Friedrich, John A., Ph.D.	Michigan State University, East Lan- sing, Mich. (1956)
*Frost, Reuben B., Ph.D.	South Dakota State College, Brookings, S.D. (1957)

- Furey, Ralph, M.A. Columbia University, New York, N.Y.
(1946)
- *Furman, David C., Ed.D. University of Puerto Rico, Rio
Piedras, Puerto Rico (1948)

— G —

- Gallagher, Herbert W., B.S. Northeastern University, Boston,
Mass. (1953)
- *Galligan, Glen E., Ed.D. Washington State College, Pullman,
Wash. (1947)
- Gallon, Arthur J., Ed.D. University of California, Santa
Barbara, Calif. (1956)
- *Ganslen, Richard V., Ph.D. University of Arkansas, Fayetteville,
Ark. (1958)
- Gardner, Gerald W., M.S. University of California, Los Angeles,
Calif. (1958)
- Gardner, Robert N., M.Ed. Lincoln University, Lincoln, Penn.
(1948)
- *Gary, Mitchell J., M.A. Western Michigan College, Kalama-
zoo, Mich. (1946)
- *Gedvilas, L. Leonard, B.S. University of Illinois, Navy Pier,
Chicago, Ill. (1948)
- Geier, Jacob G., M.A. University of Nebraska, Lincoln, Neb.
(1953)
- Geiser, Daniel S., Ed.D. Bridgewater College, Bridgewater,
Va. (1959)
- Genasci, James E., M.S. Colorado State College, Greeley, Colo.
(1959)
- Gillis, Robert J., M.A. Adrian College, Adrian, Mich. (1959)
- Gingerrich, Roman L., M.A. Goshen College, Goshen, Indiana (1950)
- Ginn, Ralph A., M.A. South Dakota State College, Brookings,
S.D. (1957)
- Glascott, John A., M.S. University of Pennsylvania, Phil-
adelphia, Penn. (1953)
- Good, Harry C., M.S. University of Nebraska, Lincoln, Neb.
(1956)
- Gordin, Richard D., M.A. Ohio Wesleyan University, Delaware,
Ohio (1954)
- *Gordon, James A., M.A. Miami University, Oxford, Ohio (1951)
- Governali, Paul, Ed.D. San Diego State College, San Diego,
Calif. (1955)
- *Grambeau, Rodney J., Ed.D. University of Michigan, Ann Arbor,
Mich. (1953)
- Granger, Rocheleau Z., M.A. Clark University, Leicester, Mass.
(1956)
- Grawunder, Ralph M., Ed.D. San Diego State College, San Diego,
Calif. (1958)

Greey, George W., Ph.D.	University of Michigan, Ann Arbor, Mich. (1958)
Gregg, Walter H., M.A.	Northwestern University, Evanston, Ill. (1948)
Grice, John W., M.A.	Oberlin College, Oberlin, Ohio (1955)
Griffiths, M.G., M.A.	University of Toronto, Toronto, Canada (1953)
Gross, Elmer A., M.S.	Pennsylvania State University, University Park, Penn. (1950)
Gross, Eugene C., M.S.	University of Nebraska, Lincoln, Neb. (1956)
Grover, George H., Ed.D.	State Education Department, Albany, N.Y. (1954)
Groves, William H., Ph.D.	Eastern Illinois University, Charleston, Ill. (1953)
Gustuson, Donald I., B.A.	University of Hawaii, Honolulu, Hawaii (1949)

- H -

*Haase, David L., M.A.	139 East 33rd St. New York, N.Y. (1958)
*Hackensmith, Charles W., Ph.D.	University of Kentucky, Lexington, Ky. (1938)
Hall, Sidney O., M.S.	Howard University, Washington, D.C. (1958)
Handy, Donald T., Ed.D.	University of California, Los Angeles, Calif. (1958)
*Haniford, George W., Jr., M.P.E.	Purdue University, Lafayette, Ind. (1955)
Hansell, George A., Ph.B.	Pennsylvania Military College, Chester, Pa. (1956)
Hanson, Ray, M.Ed.	Western Illinois University, Macomb, Ill. (1958)
Hanson, Walter V., M.A.	San Francisco College, San Francisco, Calif. (1958)
Harder, Theodore, M.A.	University of California, Santa Barbara, Calif. (1949)
*Hardy, Richard J., M.A.	Kansas State Teachers College, Emporia, Kan. (1958)
Harkness, William W., M.A.	San Francisco State College, San Francisco, Calif. (1949)
Harmon, John M., Ed.D.	Boston University, Boston, Mass. (1933)
*Harrison, Aix B., Ph.D.	Oklahoma State University, Stillwater, Okla. (1953)
Hart, Charles J., Ed.D.	Brigham Young University, Provo, Utah (1942)

- *Hartman, Paul E., M.A. Ohio State University, Columbus, Ohio (1960)
- Hartvigsen, Milton F., Ed.D. Brigham Young University, Provo, Utah (1957)
- Harvey, Robert R., M.A. DePauw University, Greencastle, Ind. (1954)
- Haslinger, Lee W., M.Ed. 509 W. 121st St., New York, N.Y. (1960)
- *Hausser, Paul C., M.A. Newark College of Engineering, Newark, N.J. (1956)
- Havel, Richard C., Ed.D. Springfield College, Springfield, Mass. (1951)
- Hefferman, John M., M.Ed. Brown University, Providence, R.I. (1953)
- *Heidloff, Raymond C., M.P.E. University of Virginia, Charlottesville, Va. (1934)
- Heilman, Charles L., Ed.D. Drake University, Des Moines, Iowa (1949)
- Hermance, Gilbert L., M.A. The Rice Institute, Houston, Texas (1931)
- Hein, Fred V., Ph.D. American Medical Association, Chicago, Ill. (1948)
- *Heldman, John, Jr., D.P.E. University of Louisville, Louisville, Ky. (1948)
- *Helms, William G., M.S. University of Michigan, Ann Arbor, Mich. (1958)
- Hendricks, Troy, Ed.D. University of Arkansas, Fayetteville, Arkansas (1949)
- *Hendrix, John W., Ed.D. Ohio State University, Columbus, Ohio (1954)
- *Henry, Donald W., M.A. University of Kansas, Lawrence, Kan. (1954)
- *Herrscher, Barton R., M.Ed. Southern Methodist University, Dallas, Texas (1958)
- *Hess, Lewis A., Ed.D. Ohio State University, Columbus, Ohio (1950)
- Hester, Ralph G., M.S. Austin College, Sherman, Texas (1956)
- Heusner, William W., Jr., Ph.D. University of Minnesota, Minneapolis, Minn. (1955)
- Hewitt, Jack E., Ed.D. University of California, Riverside, Calif. (1953)
- *Higginbotham, Ed, M.A. University of Nebraska, Lincoln, Neb. (1953)
- Hill, Eugene L., M.A. Illinois State Normal University, Normal, Ill. (1950)
- *Hixson, Chalmer G., Ed.D. Ohio State University, Columbus, Ohio (1952)

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| Hodapp, John B., P.E.D. | Eastern Illinois University, Charleston, Ill. (1959) |
| Hollingsworth, Cecil, M.A. | University of California, Los Angeles, Calif. (1948) |
| Hollingsworth, Lloyd E., Ed.D. | Gustavus Adolphus College, St. Peter, Minn. (1958) |
| (1) Holter, Fredrick J., Ph.D. | University of West Virginia, Morgantown, West Va. (1932) |
| Hoover, William R., B.S. | Kent State University, Kent, Ohio (1947) |
| *Hopson, Raymond W., Ph.D. | Savannah State College, Savannah, Ga. (1952) |
| (2) Howard, Glenn W., Ph.D. | Queens College, Flushing, N.Y. (1931) |
| *Hoy, Joseph T., M.A. | Western Michigan University, Kalamazoo, Mich. (1958) |
| Hubbard, Alfred W., Ph.D. | University of Illinois, Urbana, Ill. (1953) |
| *Huffman, Warren J., Ed.D. | University of Illinois, Urbana, Ill. (1960) |
| Humphrey, James H., Ed.D. | University of Maryland, College Park, Md. (1952) |
| Hunsaker, A.B., M.S. | Utah State College, Logan, Utah (1949) |
| *Hunsicker, Paul A., Ph.D. | University of Michigan, Ann Arbor, Mich. (1953) |
| *Husman, Burris F., Ed.D. | University of Maryland, College Park, Md. (1949) |
| Hutchinson, John L., Ed.D. | Teachers College, Columbia University, New York, N.Y. (1947) |

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| Ilowit, Roy, Ed.D. | C.W. Post College, Greenvale, N.Y. (1956) |
| Insleay, A., Douglas, B.P.E. | Sir George Williams College, Montreal, Canada, (1959) |
| Irace, Sebastian C., Ed.D. | Hunter College, Bronx, N.Y. (1955) |
| Isaac, Elkin R., M.A. | Albion College, Albion, Mich. (1959) |
| *Ismarl, A.H., Ed.D. | Purdue University, Lafayette, Ind. (1960) |

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| Jack, Harold K., Ph.D. | Temple University, Philadelphia, Pa. (1958) |
| *Jackson, Chester O., Ed.D. | University of Illinois, Champaign, Ill. (1948) |

- *(2) Jamerson, Richard E., Ed.D. University of North Carolina, Chapel Hill, N.C. (1935)
- Jennett, Clair W., Ph.D. Ball State Teachers College, Muncie, Ind. (1960)
- Johnson, Elmer L., Ed.D. Whittier College, Whittier, Calif. (1953)
- Johnson, Ralph H., Ed.D. University of Alabama, Tuscaloosa, Ala. (1948)
- Johnson, Theodore E., Ed.D. Arkansas State College, State College, Ark. (1956)
- *Jokl, Ernst, M.A. University of Kentucky, Lexington, Ky. (1956)
- Jones, Frank B., Ed.D. Sacramento State College, Sacramento, Calif. (1957)
- Jones, John O., M.S. University of Illinois, Champaign, Ill. (1947)
- (1) Jones, Lloyd M., Ph.D. State University of New York, Buffalo, N.Y. (1930)
- Jones, Raymond P., M.S. St. Bonaventure University, St. Bonaventure, N.Y. (1958)

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- Kamienski, Henry C., State College, Jersey City, N.J. (1958)
- *Kaplan, Robert, M.A. Ohio State University, Columbus, Ohio (1960)
- *Karsner, Milo G., Ph.D. University of Kentucky, Lexington, Ky. (1956)
- Kasch, Fred W., Ed.D. San Diego State College, San Diego, Calif. (1951)
- *Keefe, Robert J., Ed.D. Bowling Green State University, Bowling Green, Ohio (1952)
- *Keen, Paul V., M.S. University of Oklahoma, Norman, Okla. (1950)
- Keller, J. Oliver, M.A. University of Missouri, Columbia, Mo. (1949)
- (1) Keller, Louis F., Ph.D. University of Minnesota, Minneapolis, Minn. (1922)
- Kennedy, F., William, Ed.D. University of Manitoba, Winnipeg, Canada (1951)
- *Kenney, Harold E., Ed.D. University of Illinois, Urbana, Ill. (1950)
- Kenyon, Gerald S., M.S. New York University, New York, N.Y. (1958)
- Keogh, Jack F., M.A. University of California, Los Angeles, Calif. (1957)

- *Kerr, William R., M.Ed. Kansas State Teachers College,
Emporia, Kan. (1958)
- Kevin, James J., M.A. Oklahoma A & M College, Stillwater,
Okla. (1941)
- *Kinsey, Dan C., Ph.D. Earlham College, Richmond, Ind.
(1949)
- Kireilis, Ramon W., D.P.E. Texas Tech, Lubbock, Texas (1953)
- *Kistler, Joy W., Ph.D. Louisiana State University,
Baton Rouge, La. (1945)
- Kleinman, Seymour, M.A. Ohio State University, Columbus, Ohio
(1956)
- Klima, Richard A., M.S. Pennsylvania State University, Uni-
versity Park, Penn. (1958)
- Knapp, Clyde G., Ph.D. University of Illinois, Champaign, Ill.
(1953)
- Knox, Walter S., Ph.D. College of the Pacific, Stockton, Calif.
(1959)
- Knuttgen, Howard G., M.S. Ohio State University, Columbus, Ohio
(1953)
- Kobes, Frank J., Jr., M.A. United States Military Academy, West
Point, N.Y. (1958)
- *Korsgaard, Robert, Ed.D. Ball State Teachers College, Muncie,
Indiana (1953)
- Koski, William A., Ed.D. Oregon State College, Corvallis, Ore.
(1953)
- Kovacic, Charles R., Ed.D. University of California, Davis, Calif.
(1948)
- Koval, Mike, M.A. Hiram College, Hiram, Ohio (1956)
- *Kozar, Andrew J., M.A. University of Michigan, Ann Arbor,
Mich. (1960)
- Krakower, Hyman, Ph.D. City College of New York, New York,
N.Y. (1932)
- Kreidler, Robert D., M.A. University of Chicago, Chicago, Ill.
(1958)
- *Kretchmar, Robert T., Ed.D. Oberlin College, Oberlin, Ohio (1947)
- Kristufek, Charles J., M.S. University of Illinois, Navy Pier,
Chicago, Ill. (1951)
- Kroeten, Herbert J., M.Ed. United States Military Academy, West
Point, N.Y. (1953)
- Kroll, Walter, Ed.D. Kansas State College, Hays, Kan.
(1959)
- Krupa, Joseph H., Ed.D. George Washington University, Wash-
ington, D. C. (1955)
- Kumpf, Henry W., M.A. Rensselaer Polytechnic Institute,
Troy, N. Y. (1958)

— L —

LaGrand, Louis E., M.A. 308 W. 238th St., Bronx 63, N.Y. (1959)

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| Landis, Paul E., M.A. | Ohio High School Athletic Association, Columbus, Ohio (1942) |
| Landiss, Carl W., Ed.D. | Texas A & M College, College Station, Texas (1948) |
| Langston, Dewey F., D.P.E. | Eastern New Mexico University, Portales, N.M. (1956) |
| Langton, Clair V.N., Ed.D. | Oregon State College, Corvallis, Ore. (1939) |
| Lantange, Joseph E., Ed.D. | Santa Barbara College, Santa Barbara, Calif. (1957) |
| Larson, Leonard A., Ph.D. | University of Wisconsin, Madison, Wis. (1943) |
| *Lasch, Henry A., Ph.D. | University of North Dakota, Grand Forks, N.D. (1949) |
| Lavik, Rudolph H., M.A. | Arizona State College, Tempe, Ariz. (1951) |
| *Lawrence, Karl J., M.A. | Colgate University, Hamilton, N.Y. (1953) |
| *Lawther, John D., M.A. | Pennsylvania State University, University Park, Pa. (1951) |
| Leach, Glenn C., M.A. | Rider College, Trenton, N.J. (1959) |
| *LeFevre, John R., Ed.D. | Southern Illinois University, Carbondale, Ill. (1956) |
| *Leibee, Howard C., M.S. | University of Michigan, Ann Arbor, Mich. (1949) |
| Linck, George W., M.A. | United States Military Academy, West Point, N.Y. (1958) |
| Lindeburg, Franklin A., Ed.D. | University of California, Riverside, Calif. (1957) |
| Livingston, Robert C., Ed.D. | Oregon College of Education, Monmouth, Ore. (1957) |
| *Loebs, Gilbert F., M.A. | Colby College, Waterville, Me. (1934) |
| Logan, Gene A., M.S. | University of California, Los Angeles, Calif. (1958) |
| *Long, James W., Ph.D. | University of Toledo, Toledo, Ohio (1947) |
| Lord, Norman F., M.S. | Washington and Lee University, Lexington, Va. (1949) |
| *Loveless, James C., M.A. | DePauw University, Greencastle, Ind. (1951) |
| Ludwig, Laurence T., M.Ed. | University of Virginia, Charlottesville, Va. (1929) |
| Lumley, Albert E., M.A. | Amherst College, Amherst, Mass. (1947) |
| Lux, Lloyd H., Ed.D. | Bates College, Lewiston, Me. (1947) |

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| McAdam, Robert E., Ph.D. | Northern Illinois State College, DeKalb, Illinois (1956) |
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| *McCall, Robert A., Ph.D. | Ball State Teachers College, Muncie, Ind. (1953) |
| McCormick, Hubert J., Ed.D. | Sacramento State College, Sacramento, Calif. (1941) |
| McCoy, Ernest B., M.A. | Pennsylvania State University, University Park, Pa. (1952) |
| McCraw, Lynn W., Ed.D. | University of Texas, Austin, Texas (1953) |
| *McCristal, King J., Ed.D. | Michigan State University, East Lansing, Mich. (1948) |
| McCullough, E. Don, Ph.D. | Kansas State Teachers College, Emporia, Kan. (1956) |
| McCurdy, Hugh G., M.A. | Wesleyan University, Middleton, Conn. (1925) |
| McCutcheon, John E., B.A. | University of Toronto, Toronto, Canada (1949) |
| (1)*McDonough, Thomas E., M.A. | Emory University, Emory University, Ga. (1937) |
| McEvoy, Leo T., M.A. | St. Leo College, St. Leo, Fla. (1956) |
| McGlothlin, William C., B.S. | Hq. Pacific Air Forces, Box 13, APO 953, San Francisco, Calif. (1955) |
| McMurray, J. Gordon, Ph.D. | University of Mississippi, University, Miss. (1947) |
| *Mackenzie, Marlin M., Ed.D. | Teachers College, Columbia University, New York, N.Y. (1951) |
| *Mackey, Richard T., M.A. | Miami University, Oxford, Ohio, (1949) |
| *MacIoltz, James D., M.A. | Anderson College, Anderson, Ind., (1956) |
| Madden, John E., Ed.D. | Brooklyn College, Brooklyn, N. Y. (1948) |
| *Malan, Edward W., M.A. | Pomona College, Claremont, Calif. (1958) |
| Mand, Charles L., Ph.D. | Ohio State University, Columbus, Ohio (1957) |
| Mangual, Rafael A., M.S. | College of Agriculture and Mechanical Arts, Mayaguez, Puerto Rico (1951) |
| Mansfield, Arthur W., M.A. | University of Wisconsin, Madison, Wis. (1953) |
| Marti, Leonard R., M.Ed. | University of North Dakota, Grand Forks, N.D. (1947) |
| *Martin, Glenn A., M.A. | Southern Illinois University, Carbondale, Ill. (1955) |
| Martin, J. Frederick, M.A. | Wesleyan University, Middletown, Conn. (1924) |
| *Masley, John W., Ed.D. | Eastern Illinois University, Charleston, Ill. (1947) |
| Mason, James G., Ed.D. | Ohio University, Athens, Ohio (1948) |
| Massey, Benjamin H., M.S. | University of Maryland, College Park, Md. (1950) |

- *Massey, Wayne W., Ph.D. University of California, Los Angeles, Calif. (1954)
- *Mastropaolo, Joseph, Ph.D. Western State College, Gunnison, Colo. (1954)
- *Mathews, David O., M.S. Bowling Green State University, Bowling Green, Ohio (1949)
- *Maurer, Howard E., Ph.D. Wittenberg College, Springfield, Ohio (1956)
- *Mendelson, Ellis J., D.P.E. University of Louisville, Louisville, Ky. (1956)
- *Merrick, Roswell D., Ed.D. AAHPER - 1201 16th St., N.W., Washington, D.C. (1953)
- Messbarger, Edward J., M.A. Benedictine Heights College, Tulsa, Okla. (1959)
- *Messersmith, Lloyd L., Ed.D. Southern Methodist University, Dallas, Texas (1932)
- Meyer, Carlos B., M.Ed. Emory University, Oxford, Ga. (1959)
- *Meyers, Carlton R., Ed.D. University of Buffalo, Buffalo, N.Y. (1948)
- Michael, Ernest D., Ph.D. University of California, Santa Barbara, Calif. (1957)
- Mileham, M. Charles, M.A. University of Cincinnati, Cincinnati, Ohio (1938)
- Miller, Ben W., Ph.D. University of California, Los Angeles, Calif. (1943)
- Miller, Charles E., M.A. University of Nebraska, Lincoln, Neb. (1949)
- Miller, Henry G., M.A. University of Southern California, Los Angeles, Calif. (1954)
- Miller, James O., Ph.D. East Carolina College, Greenville, N.C. (1955)
- Miller, Kenneth D., Ph.D. Florida State University, Tallahassee, Fla. (1949)
- Misar, Frank J., M.A. Stevens Institute of Technology, Hoboken, N.J. (1948)
- Mitchell, William F., B.S. Ontario Agricultural College, Guelph, Ontario, Canada (1948)
- *Moffett, Donovan C., Ph.D. Cortland State Teachers College, Cortland, N.Y. (1930)
- Moll, Conrad S., M.S. New Mexico State University, University Park, N.M. (1958)
- *Montebello, Robert A., Ed.D. Bemidji State College, Bemidji, Minn. (1958)
- Montgomery, Jack E., Ed.D. Long Beach State College, Long Beach, Calif. (1957)
- Montgomery, Robert A., M.S. George Pepperdine College, Los Angeles, Calif. (1957)

Moore, George C., Ph.D.	University of Arkansas, Fayetteville, Ark. (1954)
Moore, Kenneth M., M.S.	University of California, Los Angeles, Calif. (1958)
Moore, Roy B., Ph.D.	Mankato State Teachers College, Mankato, Minn. (1956)
*Moore, Victor M., M.A.	Kent State University, Kent, Ohio (1949)
Moorehead, Isaac T., M.A.	Lincoln University, Jefferson City, Mo. (1958)
*Morgan, Cecil W., Ph.D.	Ithaca College, Ithaca, N.Y. (1940)
*Morland, Richard B., Ph.D.	Stetson University, DeLand, Fla. (1955)
Mott, Robert A., Ed.D.	California State Polytechnic College, San Luis Obispo, Calif. (1957)
*Mueller, Clarence E., M.A.	University of Minnesota, Minneapolis, Minn. (1953)
Mumford, A.W., M.A.	Southern University, Baton Rouge, La. (1959)

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Napolitano, Dominick J., M.A.	Notre Dame University, South Bend, Ind. (1948)
*Neilson, Herman N., M.Ed.	Hampton Institute, Hampton, Va. (1953)
Nelson, Dale O., Ph.D.	Utah State University, Logan, Utah (1957)
*Nelson, George L., D.P.E.	University of Michigan, Ann Arbor, Mich. (1960)
*Nelson, Richard L., M.A.	Miami University, Oxford, Ohio (1959)
Nesom, Guy W., M.S.	Northwestern State College, Natchitoches, La. (1947)
*Nessley, Carl T., M.Ed.	Ohio University, Athens, Ohio (1950)
*Nettleton, John D., M.A.	Ohio Northern University, Ada, Ohio (1959)
*Newberg, Sam, D.P.E.	Indiana University, Bloomington, Ind. (1959)
*Niemeyer, Roy K., Ph.D.	Michigan State University, East Lansing, Mich. (1958)
*Nixon, John E., Ed.D.	Stanford University, Palo Alto, Calif. (1949)
*Nofflet, Duane W., B.A.	Southern Union College, Wadley, Ala. (1960)
(1) *Nordly, Carl L., Ph.D.	University of California, Berkeley, Calif. (1935)
Nowak, Thaddeus S., D.P.E.	St. Benedict's College, Atchinson, Kan. (1956)

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- Obeck, Victor F., M.A. New York University, New York, N.Y. (1947)
- (1) Oberteuffer, Delbert, Ph.D. Ohio State University, Columbus, Ohio (1935)
- O'Connell, Eugene R., M.S. University of California, Los Angeles, Calif. (1959)
- *Odenkirk, James E., M.A. University of Dubuque, Dubuque, Iowa (1958)
- *Oermann, Karl C.H., Ph.D. University of Pittsburgh, Pittsburgh, Pa. (1946)
- Olds, Lloyd W., Ph.D. Eastern Michigan College, Ypsilanti, Mich. (1931)
- Oleson, Frederik A., Ph.D. Brooklyn College, Brooklyn, N.Y., (1936)
- Olsen, Albert W., M.A. San Diego State College, San Diego, Calif. (1958)
- Olson, Carl, B.S. University of Pittsburgh, Pittsburgh, Pa. (1932)
- Olson, Gareth R., Ph.D. Macalester College, St. Paul, Minn. (1959)
- Oosting, Ray, M.Ed. Trinity College, Hartford, Conn. (1927)
- Osborne, Robert F., M.Ed. University of British Columbia, Vancouver, B.C., Canada (1948)
- Osell, Clarence R., M.A. University of Minnesota, Minneapolis, Minn. (1947)
- Ostrander, Maurice E., M.Ed. University of Minnesota, Minneapolis, Minn. (1947)
- Overall, Preston V., M.S. Tennessee Polytechnic Institute, Cookeville, Tenn. (1947)
- Owens, Laurence E., Ed.D. United States Air Force Academy, Colorado Springs, Colorado (1960)
- *Oxendine, Joseph B., Ed.D. Temple University, Philadelphia, Pa. (1960)

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- *Palmer, Chester L., Ed.D. Alabama College, Montevallo, Ala. (1953)
- Palmer, Lawrence R., M.Ed. Tufts University, Medford, Mass. (1948)
- Palmieri, Joseph, D.P.E. DePaul University, Chicago, Ill. (1958)
- *Pangle, Roy V., M.Ed. George Peabody College, Nashville, Tenn. (1956)
- Pape, Laurence A., Ed.D. Fresno State College, Fresno, Calif. (1949)

Parham, Donald A., Ed.D.	Southeastern State College, Durant, Okla. (1959)
Parry, Nicholas A., D.L.C.	Chester Training College, Chester, England (1959)
Partel, Frank J., M.A.	Stevens Institute of Technology, Hoboken, N.J. (1958)
*Partin, William C., M.Ed.	Emory University, Emory University, Ga. (1956)
Patterson, Norris A., M.A.	William Jewell College, Liberty, Mo. (1956)
Patty, Elbert K., Ph.D	Middle Tennessee State College, Murfreesboro, Tenn. (1947)
*Pearson, Donald C., M.S.	Evangel College, Springfield, Mo. (1960)
Pearson, George B., Ed.D.	University of California, Riverside, Calif. (1957)
Pease, Joseph M., Ed.D.	Chico State College, Chico, Calif. (1953)
Peck, Robert R., M.A.	Bates College, Lewiston, Me. (1957)
Peterson, Alexander, Jr., Ed.D.	Southern Oregon College, Ashland, Oregon (1956)
*Peterson, Carl A., Ph.D.	University of Pittsburgh, Pittsburgh, Pa. (1960)
Peterson, Harold E., Ed.D.	Chico State College, Chico, Calif. (1953)
*Peterson, Herbert D., D.P.E.	Northwest Missouri State College, Maryville, Mo. (1953)
*Phillips, Everett E., Jr., Ph.D.	University of Toledo, Toledo, Ohio, (1959)
Philpott, Frank E., M.A.	University of Florida, Gainesville, Fla. (1955)
Picard, J.L., M.S.	University of Arizona, Tucson, Ariz. (1958)
Picariello, Saverio P., M.A.	Long Island University, Brooklyn, N.Y. (1955)
Piper, Ralph A., Ed.D.	University of Minnesota, Minneapolis, Minn. (1938)
*Pitchford, Keith, M.S.	Florida State University, Tallahassee, Fla. (1960)
*Plagenhoef, Stanley, M.S.	Wesleyan University, Middletown, Conn. (1960)
Pohndorf, R.H. Ph.D.	University of Illinois, Urbana, Ill. (1955)
Polansky, David L., M.A.	City College of New York, New York, N.Y. (1953)
Poppe, Howard A., M.A.	38 Elgru Road, Valley Stream, N.Y. (1958)

Post, Archibald T., M.Ed.	University of Vermont, Burlington, Vt. (1936)
Potter, William M., M.A.	University of Florida, Gainesville, Fla. (1958)
Price, Hartley D., Ph.D.	Florida State University, Tallahassee, Fla. (1947)

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*Quaday, John L., Ed.D.	University of North Dakota, Grand Forks, N.D. (1960)
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Rangazas, Ernest P., D.P.E.	State University of New York, Platts- burg, N.Y. (1957)
Rarick, G., Lawrence, Ph.D.	University of Wisconsin, Madison, Wis. (1951)
*Ray, Harold L., Ph.D.	Ohio State University, Columbus, Ohio (1957)
Record, Joe N., M.A.	Phillips University, Enid, Okla. (1955)
Reece, Alfred M., M.A.	University of Kentucky, Lexington, Ky. (1949)
Reed, Dwight T., M.A.	Lincoln University, Jefferson City, Mo. (1958)
Reed, James J., M.A.	Princeton University, Princeton, N.J. (1950)
*Reeder, Glen P., Ph.D.	East Carolina College, Greenville, N.C. (1960)
*Rees, Floyd D., Ph.D.	Central Missouri State College, Warrensburg, Mo. (1960)
Reid, James P., M.A.	University of Kansas City, Kansas City, Mo. (1959)
Reilly, Carlton H., M.A.	Brooklyn College, Brooklyn N. Y. (1956)
*Resick, Matthew C., Ph.D.	Kent State University, Kent, Ohio (1948)
Rhoda, William P., M.A.	University of Oregon, Eugene, Ore. (1950)
*Richardson, Deane E., Ed.D.	Denver University, Denver, Colo. (1953)
*Rickert, Lewis J., Ed.D.	University of Minnesota, Duluth, Minn. (1957)
*Rider, George L., B.A.	Miami University, Oxford, Ohio (1920)

Riskey, Earl N., M.S.	University Of Michigan, Ann Arbor, Mich. (1955)
Rivero, Manuel, M.A.	Lincoln University, Lincoln University, Pa. (1948)
Robinson, Glenn E., M.A.	South Dakota State College, Brookings, S.D. (1959)
*Roby, Fred B., Jr., Ph.D.	University of Arizona, Tucson, Ariz. (1960)
Rockafeller, Harry J., B.S.	Rutgers University, New Brunswick, N.J. (1932)
*Rogers, Martin H., Ed.D.	State University of New York, Brockport, N.Y. (1945)
Rolloff, Bruce D., M.Ed.	Colorado State College, Greeley, Colo. (1957)
Romney, Golden, Ph.D.	State College of Washington, Pullman, Wash. (1958)
Roseman, Saul, B.S.	University of Florida, Gainesville, Fla. (1959)
Rostas, Steven M., M.Ed.	Amherst College, Amherst, Mass. (1947)
Rowen, Victor, Ed.D.	San Francisco State College, San Francisco, Calif. (1953)
Royce, Joseph, Ph.D.	University of California, Berkeley, Calif. (1956)
Ruffer, William A., M.A.	Michigan College of Mining and Technology, Sault Ste. Marie, Mich. (1956)
Runquist, Kenneth C., Ed.D.	Trenton State Teachers College, Trenton, N.J. (1954)
*Ryan, Howard R., B.P.E.	McGill University, Montreal, Canada (1950)

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Saake, Alvin C., Ph.D.	University of Hawaii, Honolulu, Hawaii (1955)
Sambolin, Luis F., M.S.	Inter-American University, San German, Puerto Rico (1953)
*Sample, Glenn, B.S.	University of Cincinnati, Cincinnati, Ohio (1960)
SanFiorenzo, N. Rene, B.A.	University of Puerto Rico, Rio Piedras, Puerto Rico (1957)
*Scannell, John A., Ed.D.	Notre Dame University, South Bend, Ind. (1938)
Schmid, Melvin R., M.S.	Temple University, Philadelphia, Pa. (1958)
*Schnitzer, William J., Ed.D.	University of Cincinnati, Cincinnati, Ohio, (1954)

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| Schramm, A., M.A. | Loras College, Dubuque, Iowa, (1949) |
| Schutte, William H., M.S. | San Diego State College, San Diego, Calif. (1959) |
| Schwarberg, William D., Ed.D. | University of Cincinnati, Cincinnati, Ohio, (1956) |
| Scott, Elmer B., Jr., D.P.E. | Memphis State College, Memphis, Tenn. (1956) |
| Scott, Frank L., Ph.D. | San Diego State College, San Diego, Calif. (1958) |
| Scott, Tom, Ed.D. | Davidson College, Davidson, N.C. (1954) |
| *Seaton, Don C., Ed.D. | University of Kentucky, Lexington, Ky. (1948) |
| See, David A., M.Ed. | State University of New York, Oswego, N.Y. (1949) |
| *Segrest, Herman B., M.S. | Texas A & M College, College Station, Texas (1952) |
| Seidler, Burton M., M.S. | University of Southern California, Los Angeles, Calif. (1959) |
| *Selin, Carl W., Ph.D. | United States Coast Guard Academy, New London, Conn. (1957) |
| Settle, Caskey, Ed.D. | New Mexico Highlands University, Las Vegas, N.M. (1934) |
| Seymour, Emery W., D.P.E. | Springfield College, Springfield, Mass. (1949) |
| Sharman, James E., M.A. | Howard College, Birmingham, Ala. (1955) |
| (1)*Shaw, John H., Ed.D. | Syracuse University, Syracuse, N.Y. (1940) |
| Shay, Clayton T., Ed.D. | Springfield College, Springfield, Mass. (1949) |
| *Shea, Edward J., Ph.D. | Southern Illinois University, Carbondale, Ill. (1947) |
| Sheets, Norman L., Ed.D. | Davis and Elkins College, Elkins, W. Va. (1956) |
| *Shelton, Robert E., M.S. | University of Illinois, Urbana, Ill. (1960) |
| Shenk, Henry A., Ed.D. | University of Kansas, Lawrence, Kan. (1947) |
| Shepard, George E., Ed.D. | University of North Carolina, Chapel Hill, N.C. (1938) |
| *Shondell, Donald S., M.A. | Ball State Teachers College, Muncie, Ind. (1960) |
| Shuck, Gilbert R., D.P.E. | Western Illinois University, Macomb, Ill. (1960) |
| Shults, Fred, M.A. | Indiana University, Bloomington, Ind. (1958) |

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| Sich, John S., M.A. | Manhattan College, New York, N.Y.
(1953) |
| *Siewert, Floyd T., M.A. | West Carolina College, Cullowhee, N.C.
(1950) |
| Siegerseith, Peter O., Ed.D. | University of Oregon, Eugene, Ore.
(1948) |
| *Sills, Frank D., Ph.D. | State Teachers College, East Stroudsburg, Pa. (1953) |
| Slaughter, Edward R., B.S. | University of Virginia, Charlottesville, Va. (1956) |
| (1) Smith, Ernest B., Ed. D. | University of Georgia, Athens, Ga.
(1947) |
| Smith, John A., M.A. | Hofstra College, Hempstead, Long Island, N.Y. (1952) |
| Smith, Joseph M., L.L.B. | Brooklyn College, Brooklyn, N. Y.
(1956) |
| Smith, Julian L., M.A. | Oberlin College, Oberlin, Ohio (1959) |
| Smith, Julian W., Ed.D. | Michigan State University, East Lansing, Mich. (1956) |
| Smith, W., Donald, Ed.D. | University of Alberta, Edmonton, Alberta, Canada (1948) |
| Smithells, Philip A., M.A. | University of Otago, Dunedin, New Zealand (1956) |
| Snowberger, Campbell, Ph.D. | State Teachers College, Slippery Rock, Pa. (1958) |
| *Snyder, Raymond A., Ed.D. | University of California, Los Angeles, Calif. (1946) |
| Sparks, Lestle J., M.A. | Willamette University, Salem, Ore.
(1950) |
| Sparks, Raymond E., M.A. | Springfield College, Springfield, Mass.
(1949) |
| Spitz, George B., Jr., Ed.D. | Queens College, Flushing, N.Y. (1947) |
| Sprague, Vernon M.A. | University of Oregon, Eugene, Ore.
(1952) |
| *Spurgeon,, John H., Ph.D. | Ithaca College, Ithaca, N.Y. (1960) |
| Stacey, David H., M.S. | 131 Atlanta Road, Oak Ridge, Tenn.
(1959) |
| Stafford, George T., Ed.D. | University of Illinois, Champaign, Ill. (1939) |
| Stagg, Amos A., Jr., M.A. | Susquehanna University, Selinsgrove, Pa. (1941) |
| Stagg, Paul, Ph.D. | Pacific University, Forest Grove, Ore.
(1958) |
| (1)*Staley, Seward C., Ph.D. | University of Illinois, Urbana, Ill.
(1926) |
| Standifer, J.W., Ed.D | Texas Christian University, Ft. Worth, Texas (1953) |

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| Stankowski, Anton J., M.A. | University of Missouri, Columbia, Mo.
(1941) |
| Steckbeck, John S., M.S. | Lehigh University, Bethlehem, Pa.
(1959) |
| Steen, Barney, Ed.D. | Calvin College, Grand Rapids, Mich.
(1953) |
| Stein, Harry, M.A. | Brandeis University, Waltham, Mass.
(1958) |
| Steinhaus, Arthur H, Ph.D. | George Williams College, Chicago, Ill.
(1930) |
| Stetson, Willis J., M.A. | Swarthmore College, Swarthmore, Pa.
(1951) |
| Stewart, William K., B.S. | University of Florida, Gainesville,
Fla. (1959) |
| Stish, Eugene E., Ph.D. | University of North Dakota, Grand
Forks, N.D. (1957) |
| Strehle, Robert L., M.A. | Pomona College, Claremont, Calif.
(1958) |
| Strimer, Robert M., M.S. | Ohio Wesleyan University, Delaware,
Ohio (1954) |
| *Struck, Raymond F., M.S. | Hanover College, Hanover, Ind. (1949) |
| Stumpner, Robert L., D.P.E. | Indiana University, Bloomington, Ind.
(1957) |
| Sturzebecker, Russell L.,
Ed.D. | West Chester State Teachers College,
West Chester, Pa. (1955) |
| Svob, Robert S., M.A. | University of Arizona, Tucson, Ariz.
(1957) |
| Swanson, Robert F., M.Ed. | Newark College of Engineering
Newark, N.J. (1958) |
| Swisher, Ivan W., M.S. | Santa Monica City College, Santa
Monica, Calif. (1958) |
| Syverson, Magnus, Ed.D. | University of California, Los Angeles,
Calif. (1957) |

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| *Taddonio, Dominick A.,
M.Ed. | University of Detroit, Detroit, Mich.
(1954) |
| *Tamer, Mehmet Zeki, B.A. | University of Cincinnati, Cincinnati,
Ohio (1960) |
| Teller, Francis L., M.A. | 514 W. 122nd St., New York, N.Y.
(1958) |
| Terry, Willima L., Ed.D. | San Diego State College, San Diego,
Calif. (1948) |
| Tews, Richard W., Ph.D. | Montclair State College, Upper Mont-
clair, N.J. (1958) |

Theunissen, William V., D.P.E.	Central Michigan University, Mt. Pleasant, Mich. (1956)
Thiel, Glen N., M.Ed.	Pennsylvania State University, Uni- versity Park, Pa. (1952)
Thomas, Paul, M.S.	San Fernando State College, North- ridge, Calif. (1955)
*Thompson, Ronald B., Ph.D.	University of Michigan, Ann Arbor, Mich. (1960)
Thomson, Ronald G., Ed.D.	Arizona State University, Temple, Ariz. (1954)
Thornton, Raymond H., M.A.	University of California, Goleta, Calif. (1958)
*Tidwell, Billy D., M.S.	Oberlin College, Oberlin, Ohio, (1958)
Tierney, Robert J., M.A.	Queens College, Flushing, N.Y. (1949)
Tishler, Carl E., M.A.	Texas A & M College, College Station, Texas (1948)
Torregrosa, Felicio M., M.S.	University of Puerto Rico, Rio Piedras, Puerto Rico, (1948)
Townes, Ross E., Ed.D.	North Carolina College, Durham, N.C. (1950)
*Trabue, Joe, Jr., M.A.	University of Louisville, Louisville, Ky. (1960)
Tremble, Neal C., M.S.	Central Missouri State College, War- rensburg, Mo. (1960)
*Trepp, Joseph P., M.A.	Ohio University, Athens, Ohio, (1956)
Trevor, Dean S., M.S.	Knox College, Galesburg, Ill, (1954)
Troester, Carl A., Jr., Ed.D.	AAHPER - 1201 16th St., N.W. Wash- ington, D.C. (1941)
Truesdale, John C., Ph.D.	Grinnell College, Grinnell, Iowa (1949)
Turner, Marshall S., B.A.	Johns Hopkins University, Baltimore, Md. (1947)
Twitchell, Albert W., M.Ed.	Rutgers University, New Brunswick, N.J. (1953)

- V -

Van Bibber, George, Ed.D.	University of Connecticut, Storrs, Conn. (1938)
Vandenburgh, William G., Ed.D.	Fresno State College, Fresno, Calif. (1952)
Van Vliet, M.L., Ed.D.	University of Alberta, Edmonton, Al- berta, Canada (1948)
*Vaughan, Andrew T., Ed.D.	Southern Illinois University, Carbon- dale, Ill. (1956)
Vavra, Charles G., B.A.	University of Colorado, Boulder, Colo. (1953)
*Veller, Don, D.P.E.	Florida State University, Tallahassee, Fla. (1956)

- Verducci, Frank M., M.S. United States Air Force Academy,
Colorado Springs, Colo. (1957)
- Vitale, Frank N., M.A. San Diego State College, San Diego,
Calif. (1959)
- Von Mechow, A., Henry, M.S. State University College, Oyster Bay,
N.Y. (1958)

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- Waglow, Irving F., M.Ed. University of Florida, Gainesville,
Fla. (1955)
- *Wakefield, Markham C., Ed.D. Indiana University, Bloomington, Ind.
(1948)
- Walden, Henry E., M.S. Louisiana College, Pineville, La.
(1948)
- Walke, Nelson S., Ph.D. Brooklyn College, Brooklyn, N. Y.
(1938)
- *Walker, Galvin L., M.A. Butler University, Indianapolis, Ind.
(1951)
- Wall, William L., M.A. MacMurray College, Jacksonville, Ill.
(1959)
- Wallace, Stanley M., B.S. University of Maine, Orono, Me. (1931)
- Wallis, Earl L., Ed.D. University of California, Los Angeles,
Calif. (1958)
- *Warner, Albin P., Ph.D. DePaul University, Chicago, Ill. (1953)
- Warner, Bernard E., Ed.D. Los Angeles State College, Los
Angeles, Calif. (1958)
- Warren, Ned L., Ed.D. George Peabody College, Nashville,
Tenn. (1956)
- Watson, Jack, Ed.D. North Texas State College, Denton,
Texas (1957)
- Watt, Thomas, Jr., M.A. Long Island A & T Institute, Farming-
dale, N.Y. (1948)
- Way, Howard P., M.Ed. Allegheny College, Meadville, Penn.
(1939)
- *Wear, Carlos L., Ph.D. University of Nebraska, Lincoln, Neb.
(1953)
- *Wear, Robert E., M.A. University of Toledo, Toledo, Ohio,
(1959)
- Weber, Max A., M.A. Hamilton College, Clinton, N.Y. (1930)
- Webster, Randolph W., Ph.D. Michigan State University, East La-
ing, Mich. (1941)
- *Welch, F. G., M.S. Kansas State Teachers College, Em-
poria, Kan. (1956)
- Welch, Joseph E., M.Ed. Emory University, Emory, Ga. (1958)
- Wells, Ward M., M.Ed. University of Minnesota, Duluth, Minn.
(1948)

- *Werner, Alfred C., M.S. United States Military Academy, West Point, N.Y. (1948)
- *Weston, Arthur, Ed.D. The Rice Institute, Houston, Texas (1952)
- Whitelaw, Robert M., M.Ed. Massachusetts Institute of Technology, Cambridge, Mass (1957)
- *Widdoes, Carrol C., B.A. Ohio University, Athens, Ohio (1956)
- Wilhelm, Billy H., B.A. Clemson College, Clemson, S.C. (1957)
- Wilkinson, James J., D.P.E. Southern Illinois University, Carbondale, Ill. (1958)
- Williams, Elvin T., M.S. Springfield Public Schools, Springfield, Ore. (1958)
- Williams, James A., III, M.S. American University, Washington, D.C. (1958)
- Williams, Reuben H., M.A. State University of New York, Cortland, N.Y. (1951)
- *Williams, William R., M.Ed. Emory University, Atlanta, Ga. (1960)
- Willis, Hulon L., M.A. Virginia State College, Petersburg, Va. (1957)
- Winters, Arthur R., M.A. Lafayette College, Easton, Pa. (1926)
- Wipper, Kirk A.W., B.Ed. University of Toronto, Toronto, Ontario, Canada (1957)
- Wireman, Billy O., Ed.D. Shepherd College, Shepherdstown, W. Va. (1959)
- Wirthwein, Carl J., M.A. Ohio State University, Columbus, Ohio (1957)
- *Wolbers, Charles P., Ph.D. State University of New York, New Paltz, N.Y. (1960)
- Wolf, Jacob G., Ph.D. University of Wisconsin, Madison, Wis. (1950)
- Woodbury, Harold M., M.A. University of Maine, Orono, Me. (1959)
- Woods, Harvey D., M.A. Fairleigh Dickinson University, Rutherford, N.J. (1958)
- Wright, Edward J., B.P.E. University of Southern California, Los Angeles, Calif. (1958)

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- *Yard, Rix N., Ed.D. Denison University, Granville, Ohio (1954)
- Yessis, Michael, M.A. University of Southern California, Los Angeles, Calif. (1959)
- Yoder, Jay H., M.A. Goshen College, Goshen, Ind. (1956)
- Yost, Charles P., Ph.D. University of West Virginia, Morgantown, W. Va. (1956)
- Young, Carl H., Ed.D. University of California, Los Angeles, Calif. (1948)

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| Young, Laurence F., M.A. | San Fernando Valley State College,
Northridge, Calif. (1957) |
| Youngworth, Carl I., M.A. | Yankton College, Yankton, S.D. (1956) |
| Yuhasz, Michael S., M.S. | University of Western Ontario,
London, Ontario, Canada (1954) |

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|---------------------------|---|
| *Zeigler, Earle F., Ph.D. | University of Michigan, Ann Arbor,
Mich. (1950) |
| *Zenti, Rico N., Ed.D. | Wayne State University, Detroit, Mich.
(1956) |
| Ziegenfuss, George, Ed.D. | San Diego State College, San Diego,
Calif. (1947) |
| Zuaro, Angelo C., M.A. | New York University, New York, N.Y.
(1954) |
| Zweidinger, W.E., M.A. | New Jersey State Teachers College,
Newark, N.J. (1951) |

COLLEGE PHYSICAL EDUCATION ASSOCIATION

CONSTITUTION

ARTICLE I - NAME

Section 1 - The organization shall be known as the COLLEGE PHYSICAL EDUCATION ASSOCIATION FOR MEN.

ARTICLE II - OBJECTIVES

Section 1 - Objectives of the ASSOCIATION relate to the advancement of physical education in institutions of higher learning, including: the basic instructional program; intramural athletics; teacher education; and such other activities as may be assigned to a given college department. More specifically, the objectives are:

- a. To improve the contributions of physical education and, where appropriate, the related fields of health education and recreation, to higher education.
- b. To identify and define the major issues and problems confronting the profession, particularly those of higher education, and resolve them to the best possible ends.
- c. To gather, analyze, interpret, and organize the research needed to resolve the major issues and/or problems facing the profession of physical education, especially those which are concerned with higher education.
- d. To develop interdisciplinary relationships with kindred fields of knowledge for the light they may shed on the nature and values of physical education (e.g., anthropology, psychology, sociology, sports medicine, etc.).
- e. To improve public relations through increasing public understanding of the nature and purposes of physical education in American and world life.

ARTICLE III - MEMBERSHIP

Section 1 - The ASSOCIATION shall consist of members as hereinafter provided.

ARTICLE IV - GOVERNMENT

Section 1 - The government of the ASSOCIATION shall be vested in an Executive Council, officers, committees, and members as hereinafter provided.

ARTICLE V - WESTERN DIVISION

Section 1 - The Western College Men's Physical Education Society consisting of certain physical educators in the eleven western states shall be known as the Western Division of the College Physical Education Association.

ARTICLE VI - SECTIONS

Section 1 - The ASSOCIATION may establish sections within its organizational structure as hereinafter provided.

ARTICLE VII - MEETINGS

Section 1 - The ASSOCIATION shall conduct annual and special meetings as hereinafter provided.

ARTICLE VIII - AMENDMENTS

Section 1 - This Constitution may be amended at any regular or special meeting of the ASSOCIATION, or by mail vote. A favorable vote of three-fourths (3/4) of the members present at a regular or special business meeting, or a majority of the current membership by mail vote, shall be required for amendment; no mail vote shall be valid beyond thirty (30) days after official notification. In either case (regular or special meeting) a quorum must take action as hereinafter provided.

BY-LAWS

ARTICLE I - MEMBERSHIP AND DUES

Section 1 - There shall be two (2) types of membership; active members and honorary life members. All members shall have equal voting privileges. Active members, only, shall pay dues — as provided in Sections 2, 3, and 4 below.

Section 2 - Active members are men actively engaged in teaching or administering one or more components of college physical education, men with teaching experience pursuing graduate study, or men engaged or interested in allied fields.

- a. The Membership Committee, as provided in Article VIII, Section 4 shall review the qualifications of all applicants for active membership and report its findings to the Secretary-Treasurer. A satisfactory report by the Membership Committee shall empower the Secretary-Treasurer to carry the person on the membership roster, so long as he remains in good standing as provided in the following Section.

Section 3 - Active membership dues shall be five dollars (\$5.00) per fiscal year — as provided in Article X, Section 5 — payable to the Secretary-Treasurer upon official notification by him. Members delinquent in their annual dues for a period of one (1) year shall be dropped from the rolls; reinstatement consists of paying the annual current dues.

Section 4 - Honorary Life membership may be conferred upon Active members or former Active members by a two-thirds (2/3) affirmative vote at a regular business meeting. Honorary life members shall enjoy all the rights and privileges of active members except the payment of dues.

ARTICLE II - EXECUTIVE COUNCIL

Section 1 - The Executive Council shall consist of the President, President-Elect, the immediate Past President, the Secretary-Treasurer, one (1) Member-at-Large, and all elected Section Chairmen as provided in Articles III, IV, and V below. All members of the Executive Council shall have equal voting powers.

Section 2 - The Executive Council shall manage the general affairs of the ASSOCIATION, except as hereinafter specified. These general affairs shall consist of: (a) fulfilling directives given to it by the membership at the annual business meeting, or by mail vote; (b) presenting matters of policy to the membership at the annual business meeting, or by mail vote, for adoption or ratification; (c) acting for the ASSOCIATION between annual meetings; and (d) maintaining an active professional program throughout the year.

ARTICLE III - OFFICERS AND DUTIES

Section 1 - Officers of the ASSOCIATION shall consist of the President, President-Elect, and Secretary-Treasurer.

Section 2 - The President shall preside at all ASSOCIATION and Executive Council meetings, and appoint all committees as prescribed in Article VIII. He shall call and make appropriate arrangements for the place and conduct of all meetings of the ASSOCIATION and Executive Council as provided in Article VI. He shall supervise the program planning for all ASSOCIATION meetings as provided in Section 3 below. He shall provide for an annual audit of the Secretary-Treasurer's accounts as provided in Section 4 below. He shall serve as an ex-officio member of all committees as provided in Article VIII.

Section 3 - The President-Elect shall, during the absence of the President, perform all duties of the President and, if the office of the President becomes vacant, the President-Elect shall succeed to the presidency for the unexpired term. The President-Elect shall succeed to the presidency at the normal expiration of the President's term of office as provided in Article IV. The President-Elect shall plan the ASSOCIATION program for its regular annual meeting, under the supervision of the President as stipulated in Section 2 above.

Section 4 - The Secretary-Treasurer shall perform all duties usually incumbent upon these offices, edit and cause to be published the Proceedings of the annual meeting and other publications, in accordance with Article IX, collect dues, pay ASSOCIATION bills on approval by the President, assume general charge of all monies belonging to the ASSOCIATION, render a financial account to members at the annual business meeting, and conduct mail voting procedures as authorized by the President. The Secretary-Treasurer shall be bonded by the ASSOCIATION to the sum of one thousand dollars (\$1000.00) per annum. He shall receive the sum of three hundred dollars (\$300.00) per year for clerical and other services, if funds permit as determined by the Executive Council.

ARTICLE IV - ELECTION OF OFFICERS AND THE COUNCIL MEMBER-AT-LARGE

Section 1 - Officers and the Council Member-at-Large shall be elected by the membership at the annual business meeting. A Nominating Committee, consisting of three members, shall be appointed by the President at least three (3) months preceding the annual business meeting at which officers and the Council Member-at-Large are to be elected. The Nominating Committee shall prepare a slate of at least three (3) names for the office of President-Elect and Council Member-at-Large. If the Nominating Committee desires it may submit only the name of the incumbent Secretary-Treasurer for re-election. Additional nominations may be made from the floor at the annual business meeting. A majority vote, with a quorum present, shall be required for elec-

tion: if no candidate receives a majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot.

Section 2 - Officers and the Council Member-at-Large shall be elected for one (1) year, extending from the close of the annual meeting at which they are elected to the close of the next annual meeting at which their successors are elected. If for some unusual reason a quorum be not present at the election of officers — as provided in Article VII, Section 1 — the incumbent officer and Council Member-at-Large shall remain in their respective positions for the ensuing year.

Section 3 - The President, President-Elect, and Council Member-at-Large shall not immediately succeed themselves in the same office, except as specified in Section 2 above. The Secretary-Treasurer may be reelected from year to year at the pleasure of the membership.

Section 4 - Vacancies, except as provided in Article III, Section 3, shall be filled by the Executive Council pending the regular election.

ARTICLE V - WESTERN DIVISION

Section 1 - The Western Division will be represented on the Executive Council only as its members might be elected to it (Executive Council) in the regular course of events as College Physical Education Association members.

Section 2 - The Western Division shall have one session at the College Physical Education Association meeting whenever it is held in any of the eleven western states, in place of their regular annual meeting, and the president of the Western Division shall be responsible to the president-elect of the College Physical Education Association for this program just as any section chairman is responsible to him for his program.

Section 3 - The purposes of the Western Division shall be consistent with the purposes of the College Physical Education Association as stipulated in Article II of its constitution.

ARTICLE VI - SECTIONS

Section 1 - The ASSOCIATION may establish sections within its organizational structure to promote the activities of professional interest groups. Examples are: basic instructional programs; intramural athletics; teacher education; intercollegiate athletics; research; and others.

Section 2 - The membership may authorize the establishment of any given section at a regular business meeting by a majority vote upon written application by twenty-five (25) current members stating the purpose and function of the proposed section and upon recommendation by the Executive Council — provided a quorum takes action as prescribed in Article VII.

Section 3 - Each section shall elect its own officers consisting of a Chairman, Chairman Elect, and Secretary at the annual section meeting. A Nominating Committee consisting of three (3) section members shall be appointed by the Chairman at least three months preceding the annual section meeting at which the section officers will be elected. The Nominating Committee shall prepare a slate of two (2) names for each office. Additional nominations may be made from the floor. A majority vote shall be required for election. If there are more than two (2) candidates and no candidate receives a

majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot.

Section 4 - Section officers shall be elected for one year, extending from the close of the meeting at which they were elected to the close of the next annual meeting at which their successors are elected. Section officers shall not immediately succeed themselves in the same office.

Section 5 - The Chairman shall preside at all section meetings which shall be open to the entire ASSOCIATION membership. He shall supervise the program planning for all section meetings held during the annual meetings of the ASSOCIATION. He shall also be responsible for pursuing professional activities throughout the year which are pertinent to the interests of the section. He shall be responsible for the conduct of section activities in a manner consistent with the intent and stated provision of the ASSOCIATION'S Constitution and By-Laws. By virtue of his office as Section Chairman, he shall serve as a member of the Executive Council of the ASSOCIATION.

Section 6 - The Chairman-Elect, during the absence of the Chairman, shall perform all the duties of the Chairman, and, if the office of the Chairman becomes vacant, the Chairman-Elect shall succeed to the chairmanship for the unexpired term. The Chairman-Elect shall succeed to the Chairmanship at the normal expiration of the Chairman's term of office. The Chairman-Elect shall plan the section program for its regular annual meetings under the supervision of the Chairman as stipulated in Section V above.

Section 7 - The Secretary shall keep minutes of all business transactions at section meetings. These minutes shall be passed along to each succeeding Secretary, in order that the continuity of section activity may be maintained. He shall be responsible for forwarding all papers and reports given at section meetings to the Secretary-Treasurer of the ASSOCIATION for consideration for publication in the PROCEEDINGS.

Section 8 - The ASSOCIATION may abolish a given section at a regular business meeting by a two-thirds (2/3) majority vote provided a quorum takes action as prescribed in Article VII.

ARTICLE VII - MEETINGS

Section 1 - The ASSOCIATION and its Executive Council shall each hold at least one annual meeting at the time and place designated by the Executive Council.

Section 2 - Special meetings of the ASSOCIATION and/or the Executive Council may be called by the President upon authorization by the Executive Council.

ARTICLE VIII - QUORUM

Section 1 - A quorum to conduct ASSOCIATION business at its regular annual meeting, or by mail vote, shall consist of not less than fifteen per cent (15%) of the current membership. No mail vote shall be valid after thirty (30) days from the date upon which the question was mailed by the Secretary-Treasurer to the members for action.

Section 2 - A quorum of the Executive Council shall consist of at least three-fifths (3/5) of the members, including the President, or the President-Elect duly authorized by the President to act for him.

ARTICLE IX - COMMITTEES

Section 1 - Committees shall be designated as President's Committees, Continuing Committees, Standing Committees, and Joint Committees.

Section 2 - President's Committee shall be appointed by the President and expire with his term of office.

Section 3 - Continuing Committees shall be authorized by the membership at regular business meeting, or by mail vote. Continuing Committee members shall be appointed by the President and approved by the Executive Council. A continuing Committee is one whose assignment extends beyond the term of office for which the President is elected, but which deals with a specific project or problem of terminal nature. Such committees shall continue until discharged by official action of the membership at a regular business meeting, or by mail vote.

Section 4 - Standing Committees shall be authorized by the membership at a regular business meeting, or by mail vote. Standing Committee members shall be appointed by the President and approved by the Executive Council. A Standing Committee is one assigned a given task which, of necessity, extends indefinitely. Such committees shall follow the policy of rotating membership and number of members as determined by the Executive Council, with no person appointed for a period to exceed three (3) consecutive years. Standing Committees presently authorized by the ASSOCIATION are: Constitution; Finance; Foreign Relations; Historical Records; Membership; Necrology; Resolution; Nominations; Convention Program; Policies; and Public Relations.

Section 5 - Joint Committees shall be authorized by the Executive Council and appointed by the President. A Joint Committee is one that deals with a specific project or problem in cooperative relationships with one or more other associations or organizations.

Section 6 - Each Continuing Committee and Standing Committee shall prepare an operating code which is to be approved by the Executive Council.

Section 7 - All committees shall report at each annual meeting as determined by the Executive Council.

ARTICLE X - PUBLICATIONS

Section 1 - The official publication of the Association is the Proceedings which contains a record of activities carried on throughout the year, culminating in the annual meeting.

Section 2 - The Secretary-Treasurer shall be responsible for editing and publishing the Proceedings as soon as practicable after each annual meeting, and for the distribution of free copies to all members in good standing.

Section 3 - The Secretary-Treasurer shall arrange for the publication and distribution of such other materials as the Executive Council may direct.

ARTICLE XI - FINANCE

Section 1 - Monies obtained by the ASSOCIATION shall be allocated to the: (a) operating budget; or (b) permanent fund.

Section 2 - The operating budget shall contain those funds deemed necessary by the Executive Council to carry on the work of the ASSOCIATION throughout the fiscal year, including the annual meeting.

Section 3 - The permanent fund represents those monies that accumulate from time to time in excess of the operating budget. The Secretary-Treasurer shall invest these sums upon recommendation by the Finance Committee (as defined in the following Section) and as approved by the Executive Council.

Section 4 - A standing committee, known as the Finance Committee and conducting its affairs under the direction of the Executive Council, shall: (a) prepare annually the operating budget; and (b) make recommendations to the Executive Council on the investment of surplus funds.

Section 5 - The fiscal year shall extend from December 1, to November 30.

ARTICLE XII - RULES OF ORDER

Section 1 - Except as otherwise specified in this Constitution and By-Laws, Robert's Rules of Order shall govern all parliamentary procedure of the ASSOCIATION.

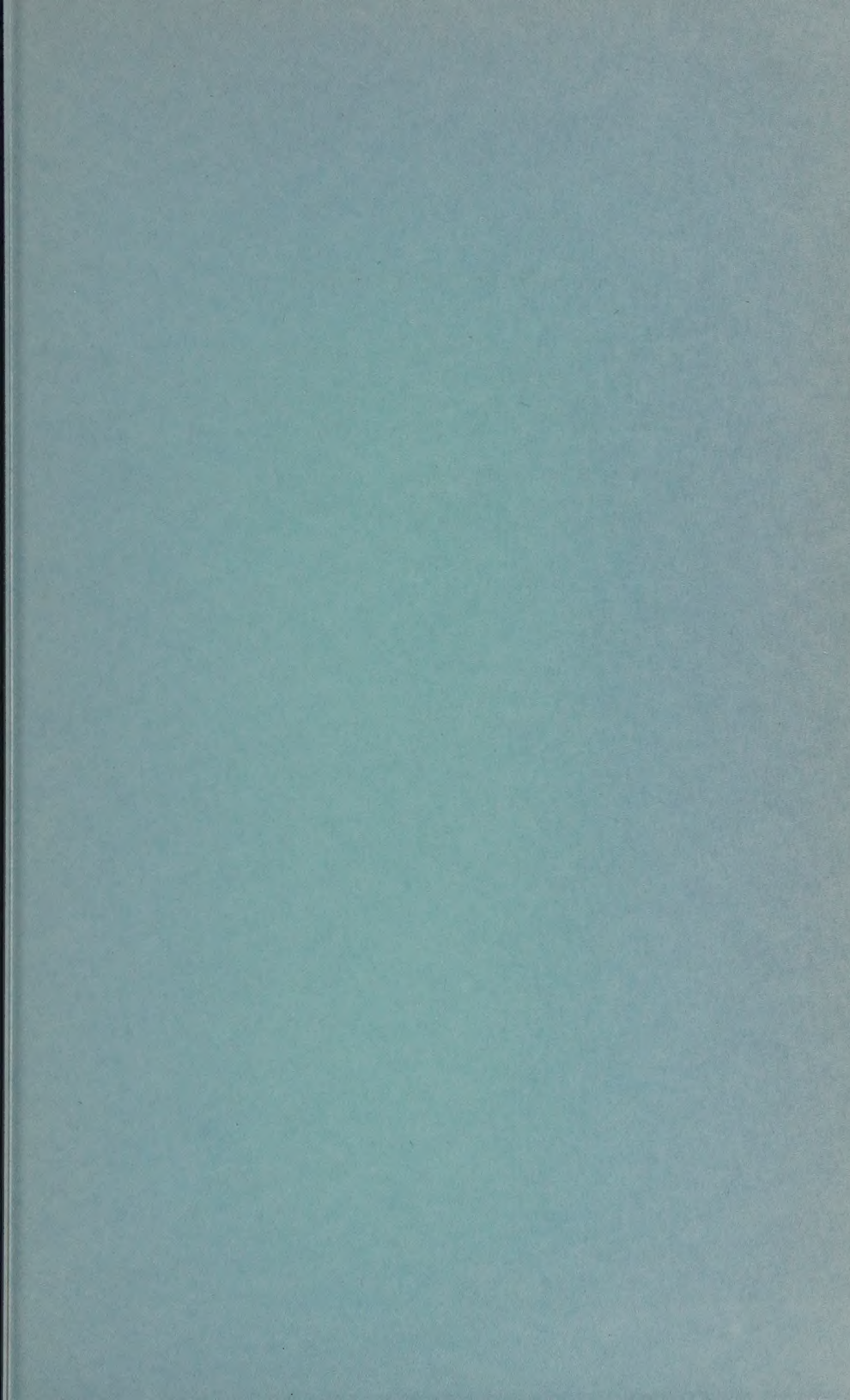
Section 2 - The President shall appoint a qualified parliamentarian to serve at all official meetings of the ASSOCIATION and Executive Council.

ARTICLE XIII - AMENDMENTS

Section 1 - These By-Laws may be amended at any regular or special meeting of the ASSOCIATION, or by mail vote. A favorable vote of two-thirds (2/3) of the members present at a regular or special business meeting, or a majority of the current membership by mail vote, shall be required for amendment: no mail vote shall be valid beyond thirty (30) days after official notification. In either case (regular or special meeting) a quorum must take action as provided in Article VII.

Membership Information

1. Membership dues (\$5.00) are payable to the College Physical Education Association (not the Secretary-Treasurer). Send payments to M. M. Mackenzie, Teachers College, Columbia University, New York 27, New York.
2. Dues entitle persons to voting privileges in the Association and to a copy of the Proceedings, published in the spring of each year.



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